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WAR DEPARTMENT

BASIC FIELD MANUAL

Volume I

FIELD SERVICE POCKETBOOK

CHAPTER 4

PHYSICAL TRAINING

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BASIC FIELD MANUAL

VOLUME I

FIELD SERVICE POCKETBOOK

CHAPTER 4

PHYSICAL TRAINING

PREPARED UNDER DIRECTION OF THE
CHIEF OF STAFF

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WAR DEPARTMENT,
WASHINGTON, *March 26, 1936.*

Chapter 4, Physical Training, Basic Field Manual, Volume I, Field Service Pocketbook, is published for the information and guidance of all concerned.

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BY ORDER OF THE SECRETARY OF WAR:

MALIN CRAIG,
Chief of Staff.

OFFICIAL:

E. T. CONLEY,
Major General,
The Adjutant General.

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FOREWORD

Basic Field Manual, Volume I, will be published in eight chapters, as follows:

Chapter 1. Military Courtesy, Salutes, Honors, and Discipline.
2. Personal Hygiene and First Aid.
3. Equipment and Clothing.
4. Physical Training.
5. Map Reading and Conventional Signs in Common Use.
6. Military and Panoramic Sketching.
7. Aerial Photograph Reading.
8. Defense against Chemical Attack.

TABLE OF CONTENTS

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BASIC FIELD MANUAL, VOLUME I

FIELD SERVICE POCKETBOOK

(The matter contained herein supersedes TR 115-5, Part I, September 10, 1928.)

CHAPTER 4

PHYSICAL TRAINING

SECTION I

GENERAL

1. Military efficiency.—*a.* The success and general efficiency of every military establishment are in a very large degree dependent upon the physical fitness, endurance, and condition of the individual units of which it is composed.

b. Physical training, development, and conditioning of those entering the military service must be one of the first and most serious concerns of those intrusted with the training of an army.

2. Object.—*a.* The object that a course of military physical training must therefore seek to attain is to develop each individual's physical attributes so that he may enter upon the duties of his profession with the utmost confidence of discharging them successfully under all circumstances.

b. Every rational course in physical training, military or otherwise, must have as its fundamental principle the development of the human organism in its entirety, establishing between the various organs a coordinated balance. In order to insure the maintenance of this balance, rational methods should seek to develop the resistive and recuperative powers of the vital organs to such a degree that each is not only sufficient unto itself but also possesses a surplus of energy against which it may draw.

c. Summarized briefly, the objects of this training are—

(1) The development of general health and vigor and their conservation.

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(2) The development of muscular strength, coordination, and endurance, and their application to the prescribed professional requirements.

(3) The development of discipline and teamwork in the individual and in the mass.

(4) The development of self-reliance, confidence, courage, self-control, alertness, and presence of mind.

(5) The development of smartness, precision, enthusiasm, personal and organizational pride, and morale.

3. Scope.—The instruction prescribed in this manual embraces the following activities which in number and variety are ample for either war or peace time training.

a. Setting-up exercises.—Setting-up exercises are the foundation upon which the entire course of physical training in the service is based. Their importance hardly can be overestimated because by their means it is possible to effect an all-around development difficult of attainment by any other method. They should therefore form an important part of every course in physical training. In this manual only those exercises have been included whose value from a physiological and military point of view is unquestioned.

b. Marching in quick and double time and running.—Marching in quick time and exercises while marching call into action the various parts of the body and tend to develop coordination, upon which to a great extent poise, posture, carriage, and rhythm are dependent. Marching in double time is a heart and lung developing exercise of moderate severity. Running, however, especially when continued for long periods, or at a high rate of speed, or when taken in conjunction with leg exercises, affects those organs in a very marked degree. Both double timing and running are invaluable in the development of endurance and organic vigor.

c. Rifle exercises.—Rifle exercises have for their object the development of proficiency with the piece. Owing to the weight of the rifle these exercises are powerful factors in the development of the muscles of the arms, upper back, shoulders, and chest, and when taken in conjunction with trunk and leg exercises they are excellent agents for the all-around development of those who possess the strength to wield the piece to advantage.

d. Climbing.—Climbing on poles or ropes, when both arms and legs are used, brings into action nearly every muscle of the body

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and exerts considerable influence upon the heart. Where poles or ropes of sufficient length are used, this exercise will also develop self-reliance.

e. Jumping.—Jumping, when indulged in as a gymnastic exercise where a series of from 8 to 10 jumps of moderate length is executed successively, is essentially a leg and heart developing exercise. When form is insisted upon and the nature of the jump is varied by introducing various leg, arm, and trunk movements, it becomes a strong factor in the development of coordination.

f. Gymnastics.—Gymnastics should be supplementary to all other forms of training. The chief object of this instruction in the service should be the development of the ability of the soldier to control his body while his weight is supported by or suspended from the arms and hands, thus enabling him to overcome successfully such obstacles as may present themselves during field service. The exercises composing this part of the training should, therefore, be confined to those that will develop the muscular strength of the entire body and that of the arms and legs in particular. At the same time these exercises will tend to make the soldier agile and active. They will teach him decision and self-reliance.

g. Personal contests.—Personal contests are the simpler forms of antagonistic gymnastics in which the participants are pitted against each other. They never fail to induce rivalry for superiority. Their chief value lies in the development of agility and quickness of thought and action.

h. Mass athletics and group games.—Mass athletics and group games are of the greatest benefit to the service only when they include all members of a command. Their value and importance as an adjunct to the physical training of the men were demonstrated conclusively during the World War.

i. Swimming.—Swimming is of importance to everyone connected with the service and all officers and enlisted men should endeavor to become proficient in it. Aside from its usefulness it is the best single means to all-around physical development.

j. Boxing and wrestling.—Boxing and wrestling should be given prominence in the enlisted men's training, as aside from their value as a means to bodily development they are important factors in the development of assurance, self-reliance, courage, endurance, and self-control. This is particularly true of boxing.

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k. Bayonet training.—Bayonet training, while primarily a military activity, must still be ranked as a valuable means of physical development. It brings into play almost every muscle in the body, and makes for the development of agility, keenness of perception, reliance, aggressiveness, and confidence.

4. Application of instruction material.—In the application of the various forms of activities it is necessary that well-defined methods be pursued in order that the objects of physical training may be attained in a thorough, systematic, and uniform manner. The following factors must be considered:

a. Object.

b. Scope.

c. Physical condition and aptitude of the men to be instructed.

d. Time allotted to this instruction and its division.

5. Condition and aptitude of the men.—*a.* The condition and aptitude of the men are most important and must always be the determining factors in planning the nature and extent of what is required of them. This is frequently overlooked, particularly by overzealous instructors, who by confusing quantity with quality often defeat the very purpose of physical training.

b. In general, it is advisable to divide the men into two distinct classes; the recruit class and the trained-soldier class. The work in each of these classes should be well within the capabilities of the average man composing them; it should be arranged progressively, and no men should be promoted into the trained-soldier class until they have qualified in the requirements of the recruit class.

6. Allotment of time.—The time allotted to instruction should, for recruits, consist of two hourly periods a day, as follows:

a. Morning period.—The morning period should begin not earlier than half an hour after breakfast. Men should not be required to indulge in strenuous exercises before breakfast. It should embrace a schedule of activities of which the following is typical:

(1) Marching and double timing, 5 minutes.

(2) Setting-up exercises, 20 minutes.

(3) Gymnastics, jumping, or climbing, 20 minutes.

(4) Recreational games or personal contests, 15 minutes.

b. Afternoon period.—The afternoon period should cover a schedule such as the following:

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(1) Bayonet training or rifle exercises, to alternate daily with boxing and wrestling, 20 minutes.

(2) Mass athletics or group games, 40 minutes.

7. Grouping of exercises.—Every exercise has a function peculiarly its own, and it is the sum of these exercises properly grouped and performed, each lesson being complete in itself with respect to the results it is intended to attain, that constitutes the successful method.

8. Number to be instructed.—As a rule, instruction should not be imparted to a unit greater than a platoon. For disciplinary purposes, however, in order to weld the command into a compact, alert, and quick unit and develop a spirit of enthusiasm, whole companies, or even battalions and regiments, should occasionally be drilled as a unit.

9. Drills.—*a.* Physical-training drills should be made as attractive as possible, so that they will react as an exhilarant and awaken the enthusiasm of the men. This will not result, however, if the mind is not employed as well as the body. The drills and exercises therefor should be so conducted as to appeal to the mental as well as the physical side of the men. By appealing to their intelligence, a cheerful, intelligent, and enthusiastic responsiveness always results. An officer who does not grasp this fact will find himself unable to arouse the men to the point where they will voluntarily extend themselves to the limit of their capabilities.

b. The time available should be divided into short periods of various types of drills, exercises, or games in preference to a long period of a single type, which is liable to result in exhaustion, monotony, lack of interest, and no benefit. Physical training should be carried on out of doors when weather permits.

10. Explanation of movements.—*a.* All movements should first be carefully explained, laying stress upon their principal object and then should be illustrated by the instructor.

b. Accurate and precise performance of every movement should be insisted upon. By doing so, other essential soldierly qualities, such as activity, agility, gracefulness, and accuracy will be developed in addition to strength and endurance.

c. When one part of the body is being employed, care should be exercised not to derange the other parts, which should remain as immobile as the conformation of the body will allow. In order to develop the proper degree of coordination the men should

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be taught to exercise any one part of the body independently of the others.

11. Arrangement of lessons.—Every lesson should begin with the least strenuous activity and gradually work up to those more strenuous. Then the operation should be reversed by gradually working back again to the less fatiguing activities.

12. Relation of respiration to physical effort.—*a.* A fundamental condition of exercise is unimpeded respiration. Proper breathing should always be insisted upon; holding the breath and breathing only when it can no longer be held is injurious. Each exercise should be accompanied by an unimpeded and, if possible, by an uninterrupted act of respiration, the inspiration and expiration depending to a great extent upon the nature of the exercise. Inhalation should always accompany that part of an exercise which tends to elevate and distend the thorax, as, raising arms over head laterally; while that part of an exercise which exerts a pressure against the walls of the chest should be accompanied by exhalation, as when lowering arms laterally from shoulders or overhead.

b. If, after exercising, the breathing becomes labored and distressed, it is an unmistakable sign that the work has been excessive. Such excessiveness is not infrequently the cause of serious injury to the heart and lungs, or to both. In cases where exercise produces palpitation, labored respiration, etc., it is advisable to recommend absolute rest.

13. Uniform.—*a.* For the ordinary physical drills, loosely laced breeches, without leggins, regulation cotton undershirts, and the regulation gymnasium shoes should be prescribed. Olive-drab shirts may be substituted for the undershirt during the colder months. Hats, caps, or blouses will not be worn; if a headdress is worn it should be removed.

b. Muscular action produces an unusual amount of bodily heat; this should be lost gradually, otherwise the body will be chilled. Hence, after exercise, never remove clothing to cool off, but, on the contrary, wear some wrap in addition. In like manner, be well wrapped when leaving the drill grounds.

14. Bathing.—Cold baths should be discouraged, especially when the body is heated, as is the case after exercising violently. In individual instances such baths may apparently appear beneficial, or at least not injurious; in a majority of cases, however, they cannot be used with impunity. Tepid or warm baths followed by a cool shower are recommended. When impossible

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to bathe, the clothes worn while exercising should be stripped off, the body sponged with tepid water, and then rubbed thoroughly with coarse towels. After such a sponge bath the body should be clothed in clean, warm clothing.

15. Eating and drinking.—*a.* The men should be instructed never to exercise immediately before or immediately after a meal, as digestion is of more importance at such times than extraneous exercise. At least one-half hour should intervene between a meal and any physical or athletic instruction, whether given before or after the meal.

b. Drinking water, particularly cold water, during or immediately after exercising should be discouraged; the body should first be allowed to recover its normal condition before quenching the thirst with draughts of cold water. If necessary to do so while exercising, cool, not cold, water may be used in small doses, but exercise must continue, especially if the body is in a state of perspiration.

SECTION II

INSTRUCTORS

16. Qualification.—*a.* For disciplinary purposes, and also to give physical training the importance it merits, the instruction should be placed in charge of commissioned officers. Instruction as important as this is worthy of the best efforts and therefore should never be intrusted to anyone who is lacking in enthusiasm or who is not properly qualified to conduct it.

b. Instructors should, if possible, be men of better than average physique and more or less accomplished athletes, ready and able, if necessary, to demonstrate personally what they require of the men. The possession of these qualities by officers is an important asset in the development of discipline, efficiency, and morale in their command.

c. Instructors must be conscientious, painstaking, and patient and have the ability to create a feeling of receptiveness among those being instructed, through which alone willing responsiveness can be engendered.

d. Above all, instructors must constantly bear in mind that the exercises are the means and not the end of the training; therefore, if there is any doubt in their minds as to the effect of an exercise, it is always well to err on the side of safety. Underdoing may be corrected while overdoing may not.

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e. The object of this instruction is not the development of experts; however, individuals who show special aptitude in any particular athletic activity may be encouraged along the line of their specialty, but never to the neglect of their other training nor at the expense of their fellows.

17. Preparation of lessons.—Officers in charge of this instruction are cautioned that their success will depend upon working according to a carefully prepared schedule of lessons progressively and systematically arranged and aimed at the attainment of the ultimate general object.

18. Explanations and corrections.—The men should always be brought to the ***at ease*** or to the ***attention*** before explanations or corrections are made. All long drawn out explanations should be avoided, and corrections when made should be brief, concise, and definite. With practice, instructors develop the faculty of interpolating cautions and corrections and of inciting men to increased effort and snappiness while they are exercising, without interfering with the continuation of an exercise or its cadence.

19. Rests.—The frequency and duration of rest periods should be determined by the condition of the men and the length of the drill period. With beginners the rests should be frequent, but as the men gradually round into condition the frequency and duration of the rests should be gradually decreased.

20. Repetition.—It is impossible to lay down a hard and fast rule governing the number of times any particular exercise may be repeated advantageously. This is a matter that must be left entirely to the judgment of the instructor, who should know the capabilities and limitations of the men being instructed. The time of day, the amount of physical effort the men have undergone before instruction, what they will be expected to undergo after it, and the nature of the exercise itself, are all factors to be considered in regulating these repetitions. Should any question relating to this arise in any instructor's mind, he should always err on the side of safety.

SECTION III

COMMANDS

21. Importance of commands.—The importance of the ability to give commands properly is often underestimated. Invariably the performance is the direct reflection of the com-

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mand calling for it. If a command is delivered distinctly, concisely, with energy and snap, and with some regard to rhythm the performance will be found to fit the command; just as a lifeless, slovenly, and disorganized performance will result from a careless and indifferent command.

22. Type and development of voice for giving commands.—*a.* Officers should, by constant practice, cultivate their vocal organs until they develop a commanding voice with the requisite amount of power and quality, and with proper pitch. Every individual's voice will carry farther if pitched in a certain key. Officers should make it their business to find out what key that is and develop it.

b. (1) Commands should be delivered with what is commonly known as a "chest voice" in contradistinction to what is known as a "head or nasal voice." The former is usually a low-pitched voice that will carry farther, be more distinct, and require very much less effort than the latter.

(2) In order to cultivate the chest voice the muscles of the chest, neck, and those that control the larynx should be relaxed in order to enable the trachea or wind pipe to be fully distended when the air is being forced up through it and against the vocal cords by the action of the diaphragm.

(3) The mouth should be opened fully and, with the assistance of the proper use of the tongue, teeth, and lips, the words of the command should be articulated and enunciated with utmost distinction and precision and with sufficient volume to fit the occasion.

c. The following simple exercises are recommended to cultivate these qualities:

(1) Take a moderately deep inhalation and then, following the instruction given in *b* (3), utter the word "hong" moderately loud and in the proper pitch for three or four seconds; inhale again and repeat the process, uttering the word "kong."

(2) The volume should be gradually increased and variation given to the exercise by substituting the words "sing-song" and "ding-dong." These words are recommended because they are simple, easily remembered, and because the sounds required in uttering them adapt themselves best in bringing out the intent of the instruction.

d. All the words of a command, particularly of the preparatory or explanatory command, must be articulated distinctly.

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The enunciation must be clear, have the proper intonation, possess the proper inflection and power, and be convincing. The diction must be pure; the substitution of sounds, which in many instances has no relation whatever to the sounds of the words for which it is substituted, should be avoided.

23. Kinds of commands.—There are two kinds of military commands; the preparatory or explanatory and the command of execution. The preparatory command describes and specifies what is required and the command of execution calls what has been prescribed into action. All preparatory commands must be given with a rising inflection, the instructor having the feeling that he is lifting the entire command with his voice and creating an eagerness on the part of the men to be off when the command of execution is literally shot at them.

24. Commands of continuation.—*a.* These commands are used in the repetition of an exercise and may be expressed in words or in numerals. In either case, however, they must not only be used to indicate rhythm or the cadence of an exercise, but they must also be indicative of the manner in which each movement of an exercise is performed.

b. Through the proper use of these commands long explanations are avoided and instructors are able to place themselves in absolute accord with the men by conveying the "feel" of an exercise to them. Thus: 1. ***Bend trunk forward,*** 2. ***EXERCISE,*** O-n-e, ***two,*** o-n-e, ***two.***

c. Here the long drawn out o-n-e indicates that the movement should be performed slowly, while the short, snappy *two* indicates a quick recovery.

25. Commands for static exercises.—*a.* Static exercises are those in which a posture is held for an appreciable length of time. If it is the purpose of the instructor to have any exercise performed in this manner, he will use words rather than numerals to indicate the successive movements. Thus: 1. ***On toes,*** 2. ***RISE,*** 3. ***Knees,*** 4. ***BEND,*** 5. ***Knees,*** 6. ***EXTEND,*** 7. ***Heels,*** 8. ***DOWN,*** or, 1. ***Trunk forward,*** 2. ***BEND,*** 3. ***RECOVER.***

b. In these commands the command of execution must indicate how the movement is to be performed.

c. In the first of these exercises the command ***Rise*** is given sharply and snappily, indicating that a snappy performance is wanted; the command ***Bend*** is drawn out moderately, to indicate moderately slow performance; the command ***Extend*** is

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also given moderately slow, while the command ***Down*** is given with more or less snap and finality.

26. Commands for continued exercises.—*a.* In these, the preparatory commands must explain the entire exercise while the command of execution which is almost invariably confined to the word "exercise" calls for the continuation of the exercise; the commands fitting the repetition being usually confined to numerals.

b. When very large bodies of men are exercising simultaneously it is advisable to follow up the preparatory command with another that acts as a cautionary command. This will insure the exercise being performed simultaneously and in unison by the whole number. Thus: 1. ***Swing arms downward and sideward;*** 2. ***In cadence;*** 3. ***EXERCISE.***

27. Commands of discontinuation.—*a.* To discontinue an exercise performed rhythmically or in cadence, the command ***Halt*** is given in place of the last numeral. In order to prepare the men for this command all numerals spoken of in the final repetition should be spoken with a rising inflection. Thus: 1. ***Thrust arms forward and sideward alternately,*** 2. ***EXERCISE, One, two, three, four, one, two, three, HALT.***

b. When numerals are used they should always be equal to the number of movements of which the exercise is composed. Thus, an exercise of two movements will be repeated at one, two; one of four movements will require four counts, etc.

c. If any particular movement of an exercise is to be performed with more energy than the others, the numerals corresponding to that movement should be emphasized. In fact, in all cases, the manner in which the numerals are spoken should be indicative of the nature of the movement required.

28. Interval between commands.—The interval between the preparatory command and the command of execution should be long enough to insure the average man having understood the former before the latter is given.

SECTION IV

POSITIONS AND FORMATIONS

29. Position of *attention.*—*a.* Nothing equals the importance of proper and correct posture; it is the very foundation upon which any successful course in physical training must be based. The position of attention is the position an unarmed, dismounted

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soldier assumes when in ranks or whenever the command ***Attention*** is given (figs. 1 and 2). This position must be one of mental as well as of physical alertness, and for that reason it must be free from all mental and physical constraint. All the muscles employed must be contracted only enough to maintain the position and any tendency toward rigidity should be avoided, as the position is one that depends upon coordination and not necessarily upon muscular effort. Instructors are cautioned to describe, illustrate, and explain the position of the various parts of the

FIGURE 1.

FIGURE 2.

body in this position, carefully calling attention to common errors. Proper posture must be consistently insisted upon at all times both in and out of ranks, until the men will assume it from habit.

b. The instructor commands: 1. ***Company,*** 2. ***ATTENTION.*** At this command the men spring into the position described below, bringing the heels together with a click. For the purpose of precise and simultaneous performance the men should be cautioned not to move until the last syllable of the command ***A-t-t-e-n-shun*** is spoken.

(1) Heels on the same line and as near each other as the conformation of the man permits.

(2) Feet turned out equally and forming an angle of 45°.

(3) Knees straight without stiffness.

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(4) Hips level and drawn back slightly; body erect and resting equally on hips; chest lifted and arched; shoulders square and falling equally.

(5) Arms hanging straight down without stiffness, so that the thumbs are along the seams of the trousers; back of the hands out; fingers held naturally.

(6) Head erect and squarely to the front; chin drawn in so that the axis of the head and neck is vertical; eyes straight to the front.

(7) Weight of the body resting equally on the heels and the balls of the feet.

(8) In assuming the position of the soldier, or of attention, the heels are brought together smartly and audibly.

FIGURE 3.

30. Position of *at ease.* 1. ***Stand at***, 2. ***EASE,*** and rest.

a. At the command ***At ease,*** keep the right foot in place. Silence, but not immobility, is required.

b. At the command 1. ***Stand at***, 2. ***EASE*** (fig. 3), at the command ***Ease,*** move the left foot smartly 12 inches to the left of the right foot; at the same time clasp the hands behind the back, palms to the rear, thumb and fingers of the right hand clasping the left thumb, without constraint. Preserve silence and immobility, except that the head and eyes may be turned toward the instructor or unit commander. This command is given when it is desired to maintain a uniform appearance of the organization.

c. At the command ***Rest,*** neither immobility nor silence need be maintained. The right foot, however, must be kept in place. The men should be cautioned to avoid assuming any position that has a tendency to nullify the object of the position of attention, as standing on one leg, allowing the shoulders or head to droop, or folding arms across the chest.

31. Formations.—The following formation is recommended for the setting-up exercises, it being the simplest and least

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complicated and more compact than any other. It requires less time and can be applied with equal facility and promptness to any unit, as it requires no more time to form a regiment than it does to form a squad. The unit to be drilled is formed in column, facing the instructor, short men in front.

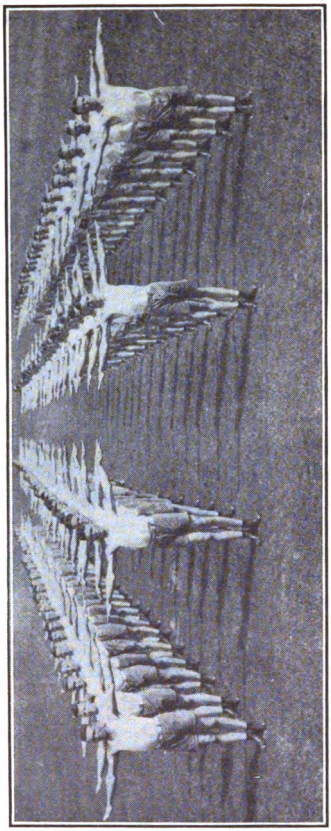

FIGURE 4.

a. 1. ***Extend to the left,*** 2. ***MARCH*** (fig. 4). At this command nos. 1 stand fast, with arms extended sideward; nos. 2, 3, and 4 turn to the left and, taking up the double time, run forward to the original left, nos. 2 taking two paces, nos. 3 taking four paces, and nos. 4 taking six paces, all facing to the front after taking the required distance, with arms extended sideward, the distance between the fingertips to be about 12 inches.

b. 1. ***Arms,*** 2. ***DOWN*** (fig. 5). At this command the arms are lowered smartly to the sides. The front rank men are now covered by the rear rank and too close to carry out the exercises.

c. To provide ample space for all, the instructor now commands: 1. ***Rear rank to the right (left),*** 2. ***UNCOVER*** (fig. 6). At the command ***Uncover*** each rear rank man stride jumps sideward to the right, squarely in the middle of the interval. In doing this he swings his right leg sideward and jumps from his left foot and lights on his right foot, smartly bringing the left into position against the right.

d. To assemble the command, the instructor commands: 1. ***Assemble,*** 2. ***MARCH.*** At the command ***March*** all return to their original position in column on the double.

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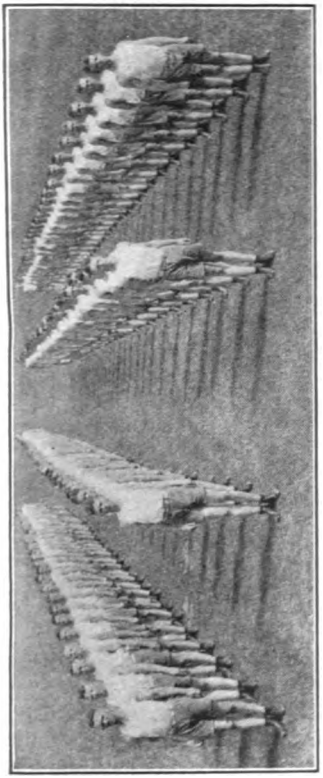
32. Starting positions.—*a.* In nearly all of the arm exercises it is necessary to hold the arms in some fixed position from which the exercise can be most advantageously executed and to which position the arms are again returned upon completing the exer-



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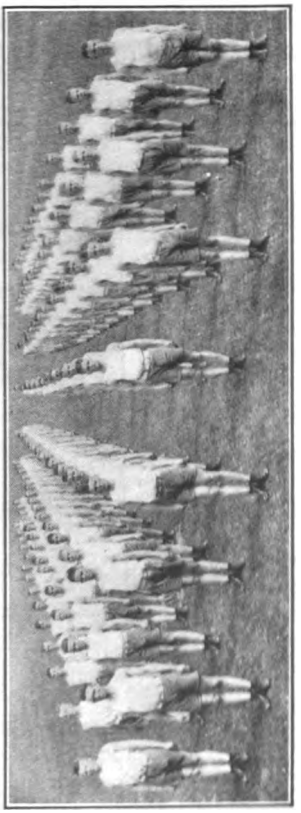

FIGURE 6.

cise. These positions are termed "starting" positions and though it may not be absolutely necessary to assume one of them before or during the employment of any other portion of the body, it is advisable to do so because they give to the exercise a finished, uniform, and graceful appearance.

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b. In following positions, at the command ***Down,*** resume the position of attention. Practice in assuming the starting position may be had by repeating the commands of execution, such as 1. ***Raise,*** 2. ***DOWN.*** Intervals (*a* above) having been taken and attention assumed, the instructor commands:

(1) 1. ***Arms forward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 7). At the command ***Raise,*** raise the arms to the front, smartly extended to their full length till the hands are in front of and at the height of the shoulders, palms down, fingers extended and joined

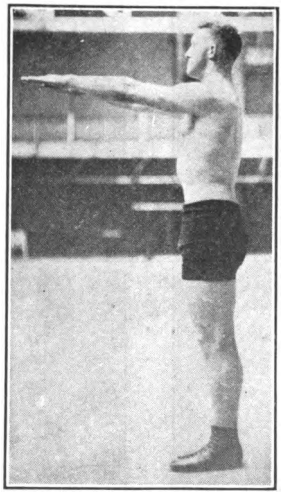

FIGURE 7.

thumbs under index fingers. At ***Arms down,*** resume position of attention.

(2) 1. ***Arms sideward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 8). At the command ***Raise,*** the arms are raised laterally until horizontal, palms down, fingers as in (1) above. The arms are brought down smartly without allowing them to touch the body.

(3) 1. ***Arms forward, upward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 9). At the command ***Raise,*** the arms are raised forward and upward, extended to their full length, until they are vertically overhead, back of hands turned outward, fingers as in (1) above. This position may also be assumed by raising the arms laterally until vertical. The instructor cautions which way he desires it done.

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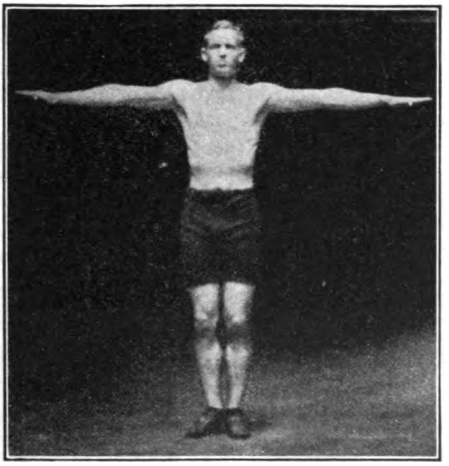

FIGURE 8.

FIGURE 9.

FIGURE 10.

FIGURE 11.

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[illegible]

[illegible] Composition of Lessons [illegible]

[illegible]

[illegible] arm movement

[illegible]

[illegible] exercise, turning

[illegible] leg exercise

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(5) Trunk exercise, dorsal, bending forward.
(6) Shoulder exercise.
(7) Trunk exercise, lateral, bending sideward.
(8) Arm exercise.
(9) Trunk exercise, abdominal, bending backward.
(10) Balancing exercise.
(11) Breathing exercise.

b. In order to insure an intelligent response, attention should be called to the object of each exercise. Each movement of every exercise should first be performed separately at a command that is indicative of the movement required, and each of the various positions thus assumed should be held momentarily before assuming the next position. This static performance insures accuracy and precision.

c. After repeating an exercise in this manner several times, the exercise may be continued in a regular cadence, which, however, should be so divided that it will bring out the full physiological value of the various movements.

d. In order to inculcate rhythmical and coordinated movements and flexibility of the mass, such exercises as lend themselves to rhythmical repetition may be performed in that manner. However they should never be done at the expense of the physical value of an exercise.

e. As the value of an exercise depends upon the manner of its application and not upon the exercise itself, the cadence in which it is performed must fit the exercise.

35. Progress of exercises.—*a.* In general the amount of energy required to perform an exercise may be progressively increased by increasing the number of repetitions or the cadence in which an exercise is performed. When this is done the increased tax on the efforts is due to the increased action of the same muscles.

b. It is possible, however, to increase the severity or difficulty of an exercise by progressively adding to its radius of action or by changing its radius in conjunction with its principal movement. In this case new muscle groups are employed or greater effort is demanded of those already engaged on account of the wider radius.

c. Thus in the trunk exercises the part about which the movement takes place is held fixed by the hands in the beginning until sufficient coordination has been developed and these parts can be controlled without the aid of the hands. The radius of the

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FIGURE 14

FIGURE 15

38. Terminology. In order to simplify [illegible]

[illegible]

[illegible]

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b. In following positions, at the command ***Down,*** resume the position of attention. Practice in assuming the starting position may be had by repeating the commands of execution, such as 1. ***Raise,*** 2. ***DOWN.*** Intervals (*a* above) having been taken and attention assumed, the instructor commands:

(1) 1. ***Arms forward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 7). At the command ***Raise,*** raise the arms to the front, smartly extended to their full length till the hands are in front of and at the height of the shoulders, palms down, fingers extended and joined

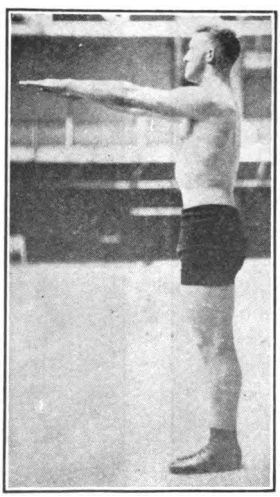

FIGURE 7.

thumbs under index fingers. At ***Arms down,*** resume position of attention.

(2) 1. ***Arms sideward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 8). At the command ***Raise,*** the arms are raised laterally until horizontal, palms down, fingers as in (1) above. The arms are brought down smartly without allowing them to touch the body.

(3) 1. ***Arms forward, upward,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 9). At the command ***Raise,*** the arms are raised forward and upward, extended to their full length, until they are vertically overhead, back of hands turned outward, fingers as in (1) above. This position may also be assumed by raising the arms laterally until vertical. The instructor cautions which way he desires it done.

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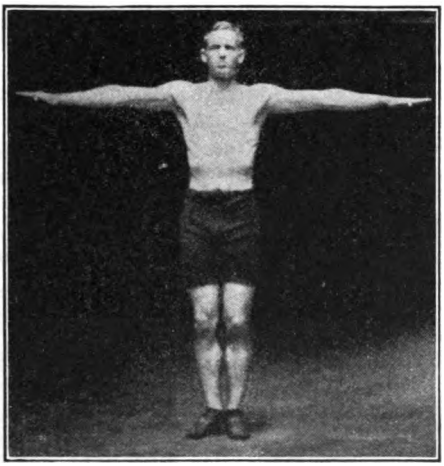

FIGURE 8.

FIGURE 9.

FIGURE 10.

FIGURE 11.

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(4) 1. ***Arms to thrust,*** 2. ***RAISE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 10). At the command ***Raise,*** the forearms are raised to the horizontal, elbows forced back, upper arms against the body, hands tightly closed, knuckles down.

(5) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 11). At the command ***Place,*** the hands are placed on the hips, the finger tips in line with trouser seams; fingers extended and joined, thumbs to the rear, elbows pressed back.

(6) 1. ***Hands on shoulders,*** 2. ***PLACE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 12). At the command ***Place,*** the forearms are raised to the

FIGURE 12.

FIGURE 13.

vertical position, palms inward, without moving the upper arms; and the elbows raised upward and outward until the upper arms are horizontal; at the same time bending the wrist and allowing the finger tips to rest lightly on the shoulders.

(7) 1. ***Fingers in rear of head,*** 2. ***LACE,*** 3. ***Arms,*** 4. ***DOWN*** (fig. 13). At the command ***Lace,*** the arms and forearms are raised as described in (6) above and the fingers laced behind the lower portion of the head, elbows well up and pressed well back.

c. These positions should be practiced frequently, and instead of recovering the position of attention after each position, the instructor may change directly from one to another by giv-

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ing the proper commands instead of commanding 1. ***Arms,*** 2. ***DOWN.*** Thus, to change from the position described in (6) above to that described in (5) above having commanded: 1. ***Hands on shoulders,*** 2. ***PLACE,*** he commands: 1. ***Hands on hips,*** 2. ***PLACE.***

d. These changes should, however, be made only after the positions are thoroughly understood and correctly assumed.

SECTION V

SETTING-UP EXERCISES

33. General.—*a.* The setting-up exercises form the basis upon which the entire system of physical training in the service is founded; therefore, greater importance must be given to them. Through the number and variety of the movements they offer, it is possible to develop the body more harmoniously than is possible by any other single means. Furthermore, since they require no apparatus of any description, it is possible to practice them anywhere, proper hygienic conditions being the only necessary adjunct to their success.

b. They are of particular value in training men for the service. In addition to their importance in the development of the muscles and endurance and the fact that through them it is possible to exert a direct influence upon the various vital organs, they are the very best means through which coordination, smartness, precision, and snappiness may be developed. In fact their value in this latter respect is at least equal to their physiological value, and they have been very properly termed "disciplinary physical training exercises."

c. They should always precede the more strenuous forms of training as they prepare the body for the greater exertion these forms demand.

34. Composition of lessons.—*a.* Each lesson must embrace exercises for all parts of the body, as the purpose of each lesson is the harmonious development of the entire body. The following sequence of exercises has been generally adopted as being the most efficacious from a physiological point of view and should be adhered to in planning the lessons:

(1) Introductory arm movement.
(2) Leg exercise.
(3) Trunk exercise, turning.
(4) Foot or leg exercise.

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(5) Trunk exercise, dorsal, bending forward.
(6) Shoulder exercise.
(7) Trunk exercise, lateral, bending sideward.
(8) Arm exercise.
(9) Trunk exercise, abdominal, bending backward.
(10) Balancing exercise.
(11) Breathing exercise.

b. In order to insure an intelligent response, attention should be called to the object of each exercise. Each movement of every exercise should first be performed separately at a command that is indicative of the movement required, and each of the various positions thus assumed should be held momentarily before assuming the next position. This static performance insures accuracy and precision.

c. After repeating an exercise in this manner several times, the exercise may be continued in a regular cadence, which, however, should be so divided that it will bring out the full physiological value of the various movements.

d. In order to inculcate rhythmical and coordinated movements and flexibility of the mass, such exercises as lend themselves to rhythmical repetition may be performed in that manner. However they should never be done at the expense of the physical value of an exercise.

e. As the value of an exercise depends upon the manner of its application and not upon the exercise itself, the cadence in which it is performed must fit the exercise.

35. Progress of exercises.—*a.* In general the amount of energy required to perform an exercise may be progressively increased by increasing the number of repetitions or the cadence in which an exercise is performed. When this is done the increased tax on the efforts is due to the increased action of the same muscles.

b. It is possible, however, to increase the severity or difficulty of an exercise by progressively adding to its radius of action or by changing its radius in conjunction with its principal movement. In this case new muscle groups are employed or greater effort is demanded of those already engaged on account of the wider radius.

c. Thus in the trunk exercises the part about which the movement takes place is held fixed by the hands in the beginning until sufficient coordination has been developed and these parts can be controlled without the aid of the hands. The radius of the

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exercise is augmented by assuming certain horizontal or perpendicular positions with the arms.

d. Finally, difficulty may be added by changing the planes of action from one plane to another or from one position to another in the same plane simultaneously with the previous movement.

e. From the beginning the men must be coached to develop proper coordination, precision, and a sense of rhythm in order that they may be able to move any part of the body independently of the other parts and also in unison with the others.

FIGURE 14.

FIGURE 15.

36. Terminology.—In order to simplify the course as much as possible technical terms have been avoided and words in everyday use have been substituted, making it unnecessary for the men to memorize a lot of terms that mean nothing to them. Instructors should confine themselves to the terminology used in these regulations.

37. Course for recruit instruction.—This course comprises 10 lessons progressively arranged. The length of time devoted to any particular lesson must be determined by the proficiency of the men; no advance lesson should be taken before the preceding lesson is properly performed. Generally, the entire course

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can be covered in 3 months. It is advisable to include the essential exercises of the last lesson in the next advance lesson.

a. First lesson.—For the sake of illustration all necessary commands to perform and to discontinue an exercise are given. In the succeeding lessons the command of execution, which is almost invariably ***Exercise,*** and the command of discontinuation, ***Halt,*** which is always given in place of the last count, are omitted.

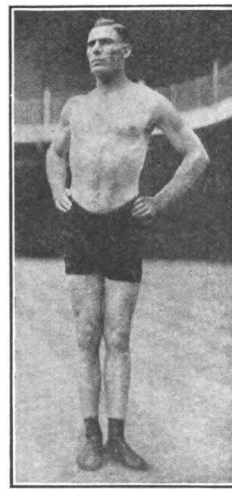

FIGURE 16.

FIGURE 17.

(1) *Starting positions.*—Repeat those described in paragraph **32.**

(2) *Exercises.*—Each exercise consists of two movements.

(*a*) 1. ***Arms forward,*** 2. ***RAISE,*** 3. ***Swing arms downward and forward,*** 4. ***EXERCISE,*** 5. ***HALT.*** Count two. The arms remain fully extended and the chest is arched on the second count.

(*b*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Rise on toes,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 14). Count two, emphasizing the first. The body is raised smartly, until the feet are extended as much as possible, and lowered gently; chest is arched on first count.

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(*c*) ***Arms to thrust,*** 2. ***RAISE,*** 3. ***Bend neck forward (or backward),*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 15). Count two, drawling the first. The chin is drawn in and the neck bent forward slowly; recovery being smart, chest is arched on first count.

(*d*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Turn trunk right (or left),*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 16). Count two,

FIGURE 18.

drawling the first. The trunk is turned slowly to the right or left as far as possible; hips remaining square, knees straight, and feet firm; the chest is arched on the first count.

(*e*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Quarter bend knees,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 17). Count two, emphasizing the second. The closed heels are not raised. The knees are bent outward over the feet to an angle of 45°. Head and trunk erect, shoulders square.

(*f*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Bend trunk forward, back arched,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 18). The chest is elevated and the body is bent forward slowly, 30°; chin up, knees straight, and legs perpendicular.

(*g*) 1. ***Arms to thrust,*** 2. ***RAISE,*** 3. ***Raise and lower shoulders,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 19). Count two,

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emphasizing both. The shoulders are raised smartly as high as possible and brought back to position smartly.

(*h*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Bend trunk sideward right (or left),*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 20). Count two, drawling the first. The chest is elevated and the trunk bent sideward slowly at the waist; hips are fixed and legs perpendicular, knee straight; back is arched and the head moves with the trunk.

(*i*) 1. ***Arms forward,*** 2. ***RAISE,*** 3. ***Stretch arms sideward,*** 4. ***EXERCISE,*** 5. ***HALT*** (figs. 7 and 8). Count two,

FIGURE 19.

FIGURE 20.

drawling the first; recover smartly. The arms, fully extended, are stretched to the side horizontal, slowly; knuckles up, chest elevated on first count.

(*j*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Bend trunk backward,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 21). Count two, drawling the first; recover smartly. The chest is elevated and the trunk is bent backward, in the region of the shoulder blades (dorsal region) as far as possible. The chin is drawn in and the neck forced back; hips fixed, legs perpendicular and knees straight.

(*k*) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Raise knees forward, alternately,*** 4. ***EXERCISE,*** 5. ***HALT*** (fig. 22). Count four, emphasizing the first and third. The thigh, the leg flexed at

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[illegible] arms to it is raised to the front horizontal smartly [illegible] momentarily and then lowered. Trunk remains erect and perpendicular.

[illegible] *Breathing exercises.* *Breathing and breathing man[illegible]* [illegible] *INHALE* [illegible] *EXHALE*. At the command *Inhale* the arms are raised slowly laterally to the perpendicular accompanying [illegible] a long and deep inhalation [illegible]

FIGURE 1

FIGURE 2

[illegible] command *Exhale* the arms are brought down smartly with a forcible exhalation.

NOTE.—The men should be instructed to inhale through the nostrils and to exhale through the mouth.

(c) *Second lesson.*—(1) *Initial position.*—Identical with that of the first lesson.

(2) *Exercise.*—(a) [illegible] *Arms forward.*—[illegible] *RAISE* [illegible] arms sideward. Count two, emphasizing the [illegible] the arms down, and swing horizontally sideward [illegible] then [illegible] elevate with like movement.

(b) [illegible] *Arms to thrust.*—[illegible] *RAISE* [illegible] count two, and repeat as in the first lesson.

(c) [illegible] *Arms to thrust.*—[illegible] *RAISE* [illegible] right [illegible] left [illegible] Count two, [illegible] the first; recover smartly.

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The head, chin square, is slowly turned to the right as far as possible, at the same time the chest is elevated, shoulders square.

(*d*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Turn trunk to the right (or left) (fig. 24). Count two, drawling the first count; recover smartly. Perform as described in the first lesson, being careful to keep the elbows in line with the shoulders.

(*e*) 1. ***Hands on hips,*** 2. ***PLACE.*** Full bend knees (fig. 25). Count two; emphasize the second count. The knees are separated, bent as low as possible, and forced out and downward; heels remain together and trunk and head erect.

FIGURE 23.

FIGURE 24.

(*f*) 1. ***Hands on hips,*** 2. ***PLACE.*** Bend trunk forward, back arched (fig. 18). Count two and perform as in the first lesson.

(*g*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Move shoulders forward and backward (fig. 26). Count two, drawling the second count. The shoulders are relaxed and moved forward as far as possible and then moved backward slowly; trunk and head erect.

(*h*) 1. ***Arms sideward,*** 2. ***RAISE.*** Bend trunk sideward right (or left) (fig. 27). Count two and perform as in the first lesson. Arms remain stretched in the plane of the shoulders.

(*i*) From attention: Stretch arms forward and sideward. Count four, drawling the first three and making the last snappy.

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The arms fully extended, palms down, are stretched to the front horizontal and from there to the side horizontal and back again to the front horizontal and then lowered. The first three movements are performed slowly; the last, however, is done as snappily as possible. The chest is elevated in the side stretch.

(*j*) 1. ***Hands on hips,*** 2. ***PLACE.*** Bend trunk backward (fig. 21). Count two and perform as in the first lesson.

(*k*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Extend legs forward, alternately (fig. 28). Count four, emphasizing the first and third. The leg is extended forward snappily, knee straight and

FIGURE 25.

toes depressed to about 6 inches from the ground and held there momentarily, and then replaced. Trunk and head erect.

(*l*) Breathing exercise: Inhale, raising arms sideward, upward; exhale, lowering arms laterally.

c. Third lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms forward,*** 2. ***RAISE.*** Swing arms downward and sideward. Count four, emphasizing the first and third counts. The arms are swung downward and back to the front horizontal, and then sideward and back to the front horizontal. Arms extended, palms down.

(*b*) 1. ***Hands on hips,*** 2. ***PLACE.*** Rise on toes of right and left foot, alternately (fig. 29). Count four, emphasizing the first and third counts. The body is extended on the toes of the

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right foot and then on those of the left. Heels remain together, trunk and head erect.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Bend head forward and backward. Count four, drawling the first and third counts. Perform as described in the first lesson.

(*d*) 1. ***Arms sideward,*** 2. ***RAISE.*** Turn trunk sideward right and left (fig. 30). Count four, drawling the first and third counts. Perform as described in the first lesson. Arms remain in the plane of the shoulders and move only with the trunk.

FIGURE 26.

FIGURE 27.

(*e*) 1. ***Hands on hips,*** 2. ***PLACE.*** Rise on toes and full bend knees. Count four, emphasizing the first count. The body is extended on toes; the knees are bent as low as possible, then straightened and the heels lowered. Body and head remain erect.

(*f*) 1. ***Fingers in rear of head,*** 2. ***PLACE.*** Bend trunk forward half bend. Count two, drawling the first count. The body is bent forward slowly at the waist until it is at right angles to the legs, back flat and elbows in the plane of the shoulders.

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(*g*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Move shoulders forward, upward, backward, and recover. Count four, drawl the first and third counts. The shoulders are relaxed and moved forward as far as possible, then raised in that position; then slowly stretched back and lowered to their normal position.

(*h*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk sideward, right and left alternately. Count four, drawling the first

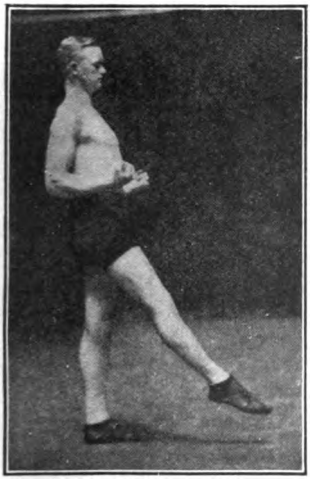

FIGURE 28.

FIGURE 29.

and third counts. Perform as described in previous lessons, elbows remaining in the plane of the shoulders.

(*i*) From attention: Stretch arms sideward, upward, sideward, and recover. Count four, drawling the first three counts and making the last count snappy. The arms are stretched laterally in the plane of the shoulders, palms down in the side, horizontal, and in the perpendicular position.

(*j*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Bend trunk backward. Count two, drawling the first count. Perform as described in the first lesson.

(*k*) 1. ***Hands on hips,*** 2. ***PLACE.*** Extend legs backward, right and left, alternating (fig. 31). Count four, the first and third to be snappy. The leg with toes depressed and knee

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straight is smartly extended to the rear, the foot being about 6 inches from the ground, held there momentarily and then brought back to position. Trunk remains erect and chest is elevated.

(*l*) Breathing exercise: Inhale, raising arms forward-upward; exhale lowering arms laterally.

d. Fourth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Extend arms forward; swing sideward, forward, and recover. Count four, emphasizing the first and fourth counts. The arms

FIGURE 30.

FIGURE 31.

are extended forward, palms up, then swung to the side horizontal; then to the front horizontal and back to starting position.

(*b*) 1. ***Hands on hips,*** 2. ***PLACE.*** Rise on toes in quick succession. Count two in quick succession. Perform as in the first lesson without pausing.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Turn head right and left alternately. Count four, drawling first and third counts. Perform as described in the first lesson.

(*d*) 1. ***Arms forward,*** 2. ***RAISE.*** Turn trunk right and left alternately and stretch arms sideward. Count four, drawling

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the first and third counts. As the trunk is being turned, the arms are stretched slowly to the side horizontal.

(*e*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Half bend knees in quick succession. Count two quickly and in quick succession. The knees are bent and extended as described in the first lesson without pausing.

(*f*) 1. ***Arms forward,*** 2. ***RAISE.*** Bend trunk forward and stretch arms to side horizontal (fig. 32). Count two, drawling the first count. The trunk is bent as described in the first lesson, at the same time the arms are stretched to the side horizontal.

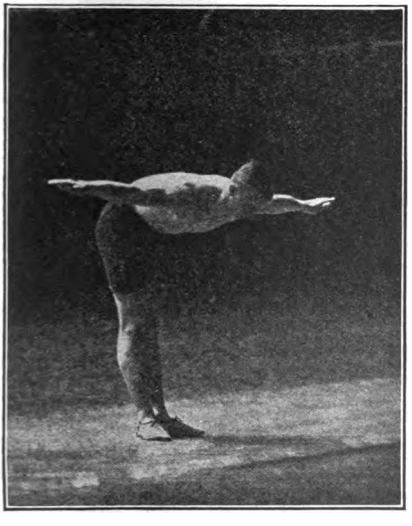

FIGURE 32.

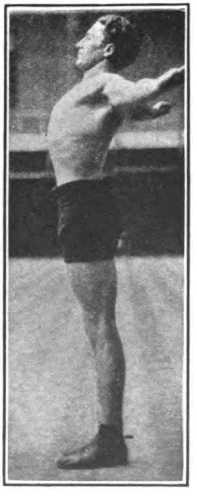

FIGURE 33.

(*g*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Move elbows forward and backward. Count two, emphasizing and drawling the second count. With the finger tips remaining in contact with the shoulders, the elbows are moved forward to the front horizontal and then slowly stretched back to the starting position.

(*h*) 1. ***Arms forward,*** 2. ***RAISE.*** Bend trunk sideward right and left and stretch arms to side horizontal (fig. 27). Count four, drawling the first and third counts as the trunk is bent slowly sideward, the arms are stretched to the side horizontal, back is arched, chest stretched, and trunk erect.

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[illegible] from standing [illegible] forward, sideward, upward, sideward, forward, to rest. Count as [illegible] at count [illegible] to the [illegible] when a foot [illegible] sharply. The arms are stretched to the front horizontal, palms down; then to the side horizontal, palms up; then to the perpendicular, palms in; and returned to the front horizontal, reverse order from which they are stretched a sharply to rest.

[illegible] **Arms outward** 1 **BASIC** Feet [illegible] backward and stretch arms to the side horizontal in 3. Count two.

Figure 1.

[illegible] to first count. The arms are stretched to the side [illegible] as the trunk is being bent.

[illegible] **Arms sideward** 1 **BASIC** Extend legs sideward [illegible] to 1. Count four, emphasizing the first and last [illegible]. The leg fully extended, with toes pointed, is [illegible] to the side and held there momentarily and [illegible]. The trunk and head remain as nearly in the [illegible] position.

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(*f*) **Breathing exercise**: Inhale, raising arms sideward and upward; exhale, lowering, forward and downward.

e. Fifth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms forward, swing downward and forward and recover. Count four, emphasizing the first and fourth counts. The arms are thrust to the front horizontally, knuckles up, then swung downward and to the rear and forward again to the front horizontal and flexed to the starting position.

(*b*) 1. ***Fingers in rear of head,*** 2. ***PLACE.*** Rise on toes and rock. Count two, in quick succession. Being on the toes, the body is raised and lowered by a series of quick extensions

FIGURE 35.

and flexions of the toes; heels together and kept from touching the ground.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Bend head forward and backward. Count four, drawling the first and third counts and perform as previously described.

(*d*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Turn trunk right and left and stretch arms sideward in the plane of the shoulders (fig. 30). Count four, drawling the first and third counts. As the body is turned, the arms, palms down, are stretched sideward in the plane of the shoulders.

(*e*) 1. ***To the squatting position,*** 2. ***BEND.*** Extend right and left legs backward alternately (figs. 35 and 36). Count four, emphasizing the first and third counts. At the command ***Bend,***

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a full bend of the knees is executed and the hands are placed on the ground between the knees. In that position the legs are fully extended backward, alternately resting on the toes, and returned to the squatting position.

(*f*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk forward, back arched, and stretch arms sideward (fig. 33). Count two, drawling the first count. As the trunk is being bent the arms are stretched sideward, palms down, in the plane of the shoulders.

(*g*) From attention: Curl shoulders forward and backward (fig. 37). Count two, drawling both counts. The shoulders

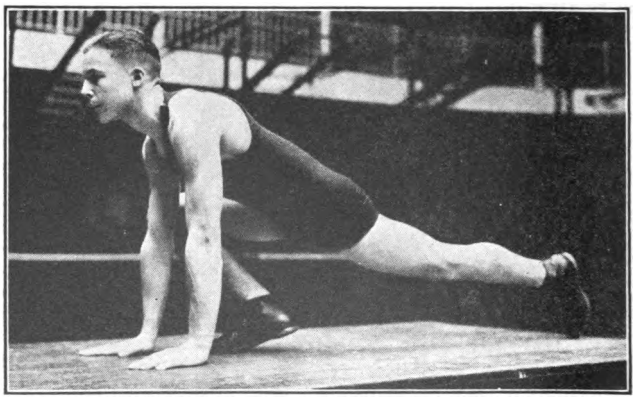

FIGURE 36.

are moved forward, the arms rotating inward until the knuckles are turned in; then the shoulders are moved slowly backward and the arms are rotated until the palms are turned out.

(*h*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk sideward right and left alternately, and stretch arms sideward (fig. 27). Count four, drawling the first and third counts. The arms are stretched in the plane of the shoulders as the trunk is being bent.

(*i*) From attention: Flex forearms vertically; extend arms upward and return in reverse order (fig. 38). Count four, emphasizing the second count. The forearms are flexed until the hands, palms in, are squarely in front of the shoulders and

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then extended upward forcibly; then flexed again and lowered to the sides.

(*j*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk backward and stretch arms sideward (fig. 33). Count two, drawling the first count. As the trunk is bent backward the arms are stretched to the side horizontal, palms up.

(*k*) From attention: Raise arms and right (left) leg forward; stretch arms sideward and move leg backward; return in reverse

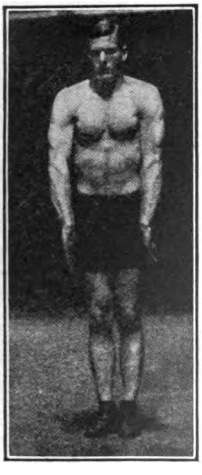

FIGURE 37.

FIGURE 38.

order (fig. 39). Count four, each count to be short and snappy with an appreciable interval between the counts. The arms and the right leg are brought forward smartly; then the arms are moved to the side horizontal, and the leg is moved backward smartly; the return is in reverse order. There should be a distinct pause in each position.

(*l*) Breathing exercise: Inhale, raising arms sideward and upward; exhale quickly, lowering them sideward and downward.

f. Sixth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms forward,*** 2. ***RAISE.*** Swing right arm upward and left arm downward; then left arm upward and right arm downward (fig. 40). Count four, emphasizing the

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a full bend of the knees is executed and the hands are the ground between the knees. In that position the feet extended backward, alternately resting on the returned to the squatting position.

(C) 1. ***Hands on shoulders, 2. PLACE.*** Bend the ward, back arched, and stretch arms sideward (fig. 33 two, drawing the first count. As the trunk is being arms are stretched sideward, palms down, in the plane shoulders.

(D) From attention: Curl shoulders forward and ba (fig. 37). Count two, drawling both counts. The sh

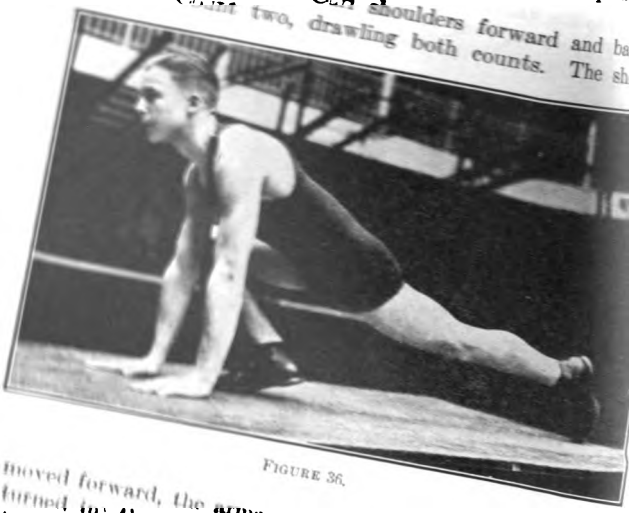

FIGURE 36.

are moved forward, the arms rotating inward until the knuckles are turned in; then the shoulders are moved slowly backward and the arms are rotated until the palms are turned out.

(A) 1. ***Hands on shoulders, 2. PLACE.*** Bend trunk sideward right and left alternately, and stretch arms sideward (fig. 37). Count four, drawling the first and third counts. The arms are stretched in the plane of the shoulders as the trunk is being bent.

(B) From attention: Flex forearms vertically; extend arms upward and return in reverse order (fig. 38). Count four, emphasizing the second count. The forearms are flexed until the hands, palms in, are squarely in front of the shoulders and

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ı extended upward forcibly; then flexed again and lowered .he sides.

j) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk back-:d and stretch arms sideward (fig. 33). Count two, drawling first count. As the trunk is bent backward the arms are etched to the side horizontal, palms up.

(*k*) From attention: Raise arms and right (left) leg forward; etch arms sideward and move leg backward; return in reverse

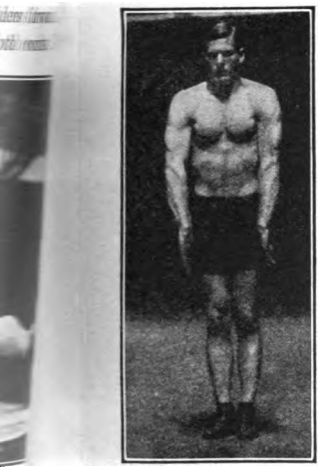

FIGURE 37.

FIGURE 38.

order (fig. 39). Count four, each count to be short and snappy with an appreciable interval between the counts. The arms and the right leg are brought forward smartly; then the arms are moved to the side horizontal, and the leg is moved backward smartly; the return is in reverse order. There should be a distinct pause in each position.

(*l*) Breathing exercise: Inhale, raising arms sideward and upward; exhale quickly, lowering them sideward and downward.

f. Sixth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms forward,*** 2. ***RAISE.*** Swing right arm upward and left arm downward; then left arm upward and right arm downward (fig. 40). Count four, emphasizing the

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first and third counts. The right arm is swung directly upward and the left downward, palms in; then the arms are returned to the starting positions; the left arm is then swung upward and the right downward; then the starting is again assumed. The arms are kept fully extended throughout the swings.

b) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Rise on toes and extend arms upward. Count two, emphasizing the first count. The arms and toes are extended smartly and simultaneously.

FIGURE 38

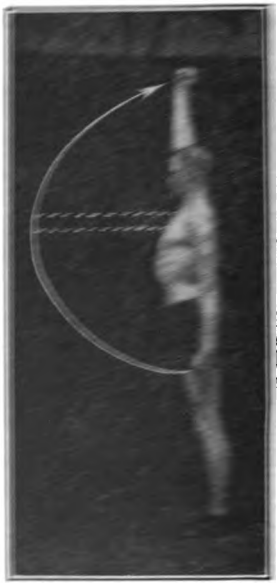

FIGURE 39.

c) 1. ***Hands on hips,*** 2. ***PLACE.*** Turn head right and left and bend neck forward and back ward. Count eight, emphasizing the odd counts. Perform as previously prescribed.

d) 1. ***Arms upward,*** 2. ***RAISE.*** Turn trunk right and left and lower arms to side horizontal, palms down (fig. 30). As the trunk is turned the arms are lowered and stretched in the side horizontal.

e) 1. ***To the squatting position*** (fig. 35), 2. ***BEND.*** Extend legs back ward to the leaning rest (fig. 41), and recover.

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two, emphasizing the first count. Both legs are extended
ward, resting on the toes; knees straight and body rigid;
well under the shoulders; recover the squatting position
1. ***Hands on hips.*** 2. ***BACK.*** Bend head trunk forward
tend arms downward (fig. 43). Count two, drawing the
count. The body is bent forward at the waist as low as
le and the arms extended until three (fingers) touch (a) the
d as possible. Knees straight.
1. ***Arms sideward.*** 2. ***BACK.*** Rotate arms forward
backward (fig. 43). Count two, drawing both counts
arms are rotated forward and the shoulders squared.

FIGURE 43

(*h*) 1. ***Arms upward.*** 2. ***RAISE.*** Bend trunk sideward,
ght and left alternately, and lower arms to side horizontal
ount four, drawling the first and third counts. As the trunk
bent, the arms are lowered in the plane of the shoulder, palms
own.

(*i*) From attention: Stretch arms forward, sideward, upward,
deward, forward, and recover. (See e (2) (*i*) above.)

(*j*) 1. ***Arms upward.*** 2. ***RAISE.*** Bend trunk backward and
ower arms to side horizontal (fig. 33). Count two, drawling
he first count. As the trunk is bent backward the arms are
owered to the side horizontal, palms down.

(*k*) 1. ***Arms forward.*** 2. ***RAISE.*** Raise extended right and
eft leg sideward alternately and move arms sideward (fig. 34).

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first and third counts. The right arm is swung directly upward and the left downward, palms in; then the arms are returned to the starting positions; the left arm is then swung upward and the right downward; then the starting is again assumed. The arms are kept fully extended throughout the swings.

(*b*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Rise on toes and extend arms upward. Count two, emphasizing the first count. The arms and toes are extended smartly and simultaneously.

FIGURE 39.

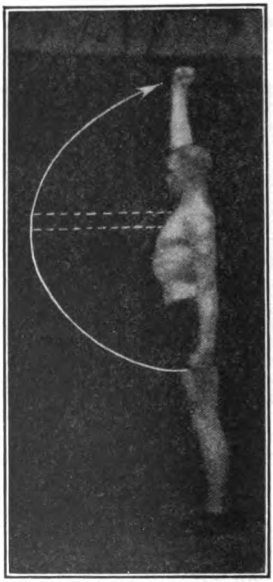

FIGURE 40.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Turn head right and left and bend neck forward and backward. Count eight, emphasizing the odd counts. Perform as previously prescribed.

(*d*) 1. ***Arms upward,*** 2. ***RAISE.*** Turn trunk right and left and lower arms to side horizontal, palms down (fig. 30). As the trunk is turned the arms are lowered and stretched in the side horizontal.

(*e*) 1. ***To the squatting position*** (fig. 35), 2. ***BEND.*** Extend legs backward to the leaning rest (fig. 41), and recover.

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Count two, emphasizing the first count. Both legs are extended backward, resting on the toes; knees straight and body rigid; hands well under the shoulders; recover the squatting position.

(*f*) 1. ***Hands on hips,*** 2. ***PLACE.*** Full bend trunk forward and extend arms downward (fig. 42). Count two, drawling the first count. The body is bent forward at the waist as low as possible and the arms extended until finger tips are as close to the ground as possible. Knees straight.

(*g*) 1. ***Arms sideward,*** 2. ***RAISE.*** Rotate arms forward and backward (fig. 43). Count two, drawling both counts. The arms are rotated forward and the shoulders squared.

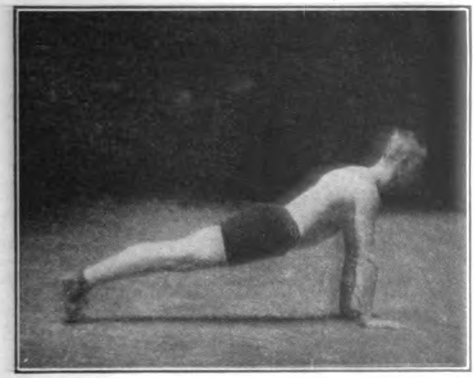

FIGURE 41.

(*h*) 1. ***Arms upward,*** 2. ***RAISE.*** Bend trunk sideward, right and left alternately, and lower arms to side horizontal. Count four, drawling the first and third counts. As the trunk is bent, the arms are lowered in the plane of the shoulder, palms down.

(*i*) From attention: Stretch arms forward, sideward, upward, sideward, forward, and recover. (See *e* (2) (*i*) above.)

(*j*) 1. ***Arms upward,*** 2. ***RAISE.*** Bend trunk backward and lower arms to side horizontal (fig. 33). Count two, drawling the first count. As the trunk is bent backward the arms are lowered to the side horizontal, palms down.

(*k*) 1. ***Arms forward,*** 2. ***RAISE.*** Raise extended right and left leg sideward alternately and move arms sideward (fig. 34).

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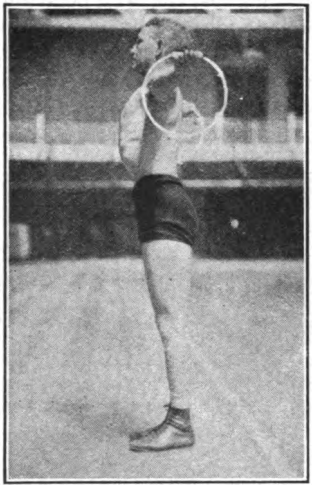

FIGURE 44.

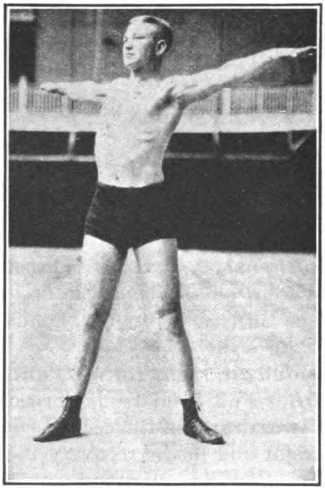

FIGURE 45.

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(*h*) From attention: Stretch arms forward, sideward, upward, and return in reverse order, rising on toes with the upward stretch. Count six and perform as in the sixth lesson.

(*i*) 1. ***Stride sideward right (or left) and raise arms forward,*** 2. ***STRIDE.*** Bend trunk sideward right and left and stretch arms to the sides horizontal (fig. 47). Count four, drawling the first and third counts. The knees remain straight throughout the exercise; chest elevated and back arched.

(*j*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms upward and downward. Count four, emphasizing the first and third counts.

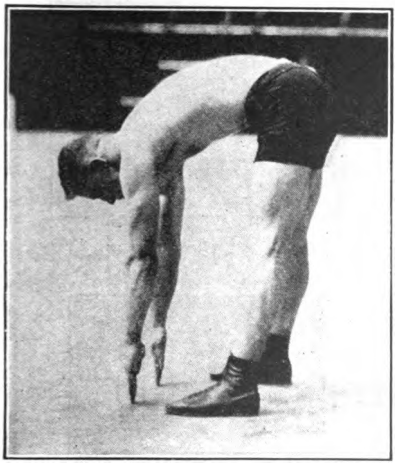

FIGURE 46.

n the upward thrust the knuckles are turned out and in the downward thrust they are turned forward.

(*k*) 1. ***Stride forward right (or left), arms forward,*** 2. ***TRIDE.*** Stretch arms sideward and raise right and left leg ackward, alternately (figure 48). Count four, drawling the rst and third counts.

(*l*) Breathing exercise: Inhale, with arm raisings; exhale, ith arm lowerings.

h. Eighth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Right arm forward and upward,*** 2. ***AISE.*** Swing right arm downward and left arm upward, alternately. Count two, emphasizing both counts. The arms emain fully extended throughout the swings.

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(*b*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Rise on toes and extend arms upward. Count two, emphasizing the first count. The extension should be performed snappily.

(*c*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Repeat the neck bendings and turnings.

(*d*) 1. ***Stride sideward right*** (*or left*)***, arm sideward,*** 2. ***STRIDE.*** Turn trunk right and left and stretch arms upward. (Fig. 49.) Count four, drawling first and third counts. Knees remain straight, feet firm, and hips fixed.

FIGURE 49.

(*e*) From attention: Bend to squatting position, extend legs to the leaning rest, legs separated, bend and then extend arms, return to the squatting position, and recover the position of attention. Count six, emphasizing the first, second, fourth, and sixth counts. Perform as in *g* (2) (*e*) above.

(*f*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms forward, sideward, upward, and downward, alternately. Count eight, emphasizing the odd counts.

(*g*) 1. ***Stride sideward right*** (*or left*)***,*** 2. ***STRIDE.*** Bend trunk forward, back arched, and stretch arms obliquely forward-upward (fig. 50). Count two, drawling the first count.

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a full bend of the knees is executed and the hands are placed on the ground between the knees. In that position the legs are fully extended backward, alternately resting on the toes, and returned to the squatting position.

(*f*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk forward, back arched, and stretch arms sideward (fig. 33). Count two, drawling the first count. As the trunk is being bent the arms are stretched sideward, palms down, in the plane of the shoulders.

(*g*) From attention: Curl shoulders forward and backward (fig. 37). Count two, drawling both counts. The shoulders

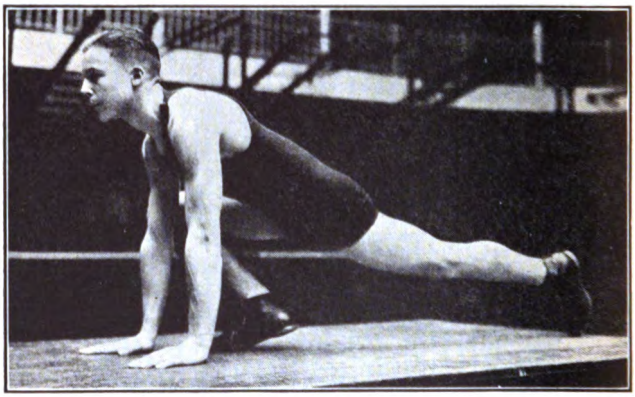

FIGURE 36.

are moved forward, the arms rotating inward until the knuckles are turned in; then the shoulders are moved slowly backward and the arms are rotated until the palms are turned out.

(*h*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk sideward right and left alternately, and stretch arms sideward (fig. 27). Count four, drawling the first and third counts. The arms are stretched in the plane of the shoulders as the trunk is being bent.

(*i*) From attention: Flex forearms vertically; extend arms upward and return in reverse order (fig. 38). Count four, emphasizing the second count. The forearms are flexed until the hands, palms in, are squarely in front of the shoulders and

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then extended upward forcibly; then flexed again and lowered to the sides.

(*j*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Bend trunk backward and stretch arms sideward (fig. 33). Count two, drawling the first count. As the trunk is bent backward the arms are stretched to the side horizontal, palms up.

(*k*) From attention: Raise arms and right (left) leg forward; stretch arms sideward and move leg backward; return in reverse

FIGURE 37.

FIGURE 38.

order (fig. 39). Count four, each count to be short and snappy with an appreciable interval between the counts. The arms and the right leg are brought forward smartly; then the arms are moved to the side horizontal, and the leg is moved backward smartly; the return is in reverse order. There should be a distinct pause in each position.

(*l*) Breathing exercise: Inhale, raising arms sideward and upward; exhale quickly, lowering them sideward and downward.

f. Sixth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms forward,*** 2. ***RAISE.*** Swing right arm upward and left arm downward; then left arm upward and right arm downward (fig. 40). Count four, emphasizing the

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first and third counts. The right arm is swung directly upward and the left downward, palms in; then the arms are returned to the starting positions; the left arm is then swung upward and the right downward; then the starting is again assumed. The arms are kept fully extended throughout the swings.

(*b*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Rise on toes and extend arms upward. Count two, emphasizing the first count. The arms and toes are extended smartly and simultaneously.

FIGURE 39.

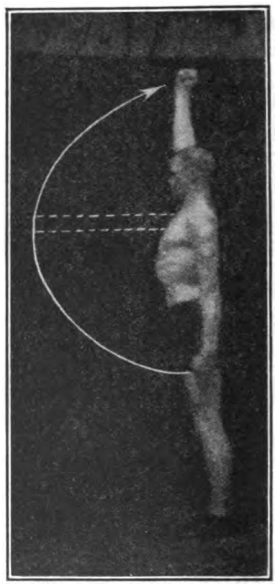

FIGURE 40.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Turn head right and left and bend neck forward and backward. Count eight, emphasizing the odd counts. Perform as previously prescribed.

(*d*) 1. ***Arms upward,*** 2. ***RAISE.*** Turn trunk right and left and lower arms to side horizontal, palms down (fig. 30). As the trunk is turned the arms are lowered and stretched in the side horizontal.

(*e*) 1. ***To the squatting position*** (fig. 35), 2. ***BEND.*** Extend legs backward to the leaning rest (fig. 41), and recover.

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Count two, emphasizing the first count. Both legs are extended backward, resting on the toes; knees straight and body rigid; hands well under the shoulders; recover the squatting position.

(*f*) 1. ***Hands on hips,*** 2. ***PLACE.*** Full bend trunk forward and extend arms downward (fig. 42). Count two, drawling the first count. The body is bent forward at the waist as low as possible and the arms extended until finger tips are as close to the ground as possible. Knees straight.

(*g*) 1. ***Arms sideward,*** 2. ***RAISE.*** Rotate arms forward and backward (fig. 43). Count two, drawling both counts. The arms are rotated forward and the shoulders squared.

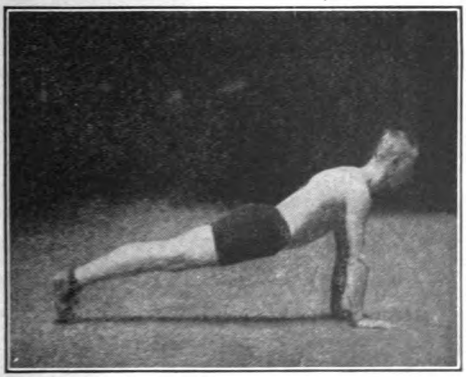

FIGURE 41.

(*h*) 1. ***Arms upward,*** 2. ***RAISE.*** Bend trunk sideward, right and left alternately, and lower arms to side horizontal. Count four, drawling the first and third counts. As the trunk is bent, the arms are lowered in the plane of the shoulder, palms down.

(*i*) From attention: Stretch arms forward, sideward, upward, sideward, forward, and recover. (See *e* (2) (*i*) above.)

(*j*) 1. ***Arms upward,*** 2. ***RAISE.*** Bend trunk backward and lower arms to side horizontal (fig. 33). Count two, drawling the first count. As the trunk is bent backward the arms are lowered to the side horizontal, palms down.

(*k*) 1. ***Arms forward,*** 2. ***RAISE.*** Raise extended right and left leg sideward alternately and move arms sideward (fig. 34).

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Count four, smartly. The extended leg is raised sideward as high as possible, toes depressed, without deranging position of the body and the arms are moved smartly to the side horizontal. After a momentary pause the starting position is resumed.

(*l*) Breathing exercise: Inhale, with any of the arm raisings; exhale, with any of the arm lowerings.

g. Seventh lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms sideward, palms up,*** 2. ***RAISE.*** Circumduct arms backward (fig 44). Count two. The arms,

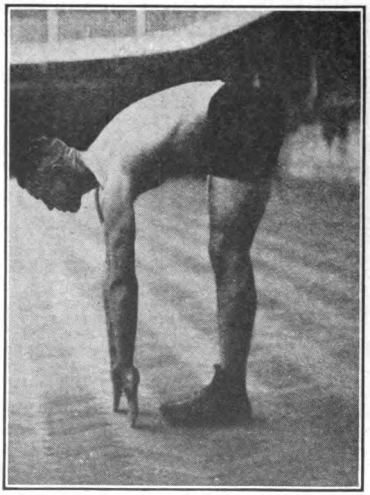

FIGURE 42.

fully extended, are circled backward, finger tips traversing a circle about 12 inches in diameter.

(*b*) 1. ***Hands on hips,*** 2. ***PLACE.*** Hop alternately on the right and left foot. Count four. While hopping, the unemployed leg is extended forward, knee straight, toes depressed.

(*c*) 1. ***Hands on hips,*** 2. ***PLACE.*** Repeat the neck exercise.

(*d*) 1. ***Stride sideward right (or left) and raise arms forward,*** 2. ***STRIDE.*** Turn trunk right and left and stretch arms to the side horizontal, palms down (fig. 45). Count four, drawling the first and third counts. In the stride position the distance between heels is about 20 inches. Turn the trunk and stretch arms sideward while in that position.

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(*e*) 1. ***To the squatting position,*** 2. ***BEND.*** Extend legs backward to the leaning rest (fig. 41); bend and then extend arms while in that position; return to the squatting position and recover the position of attention. Count six, emphasizing the first, second, fourth, and sixth counts. This exercise should first be performed statically; that is, each position held momentarily, before it is attempted in cadence.

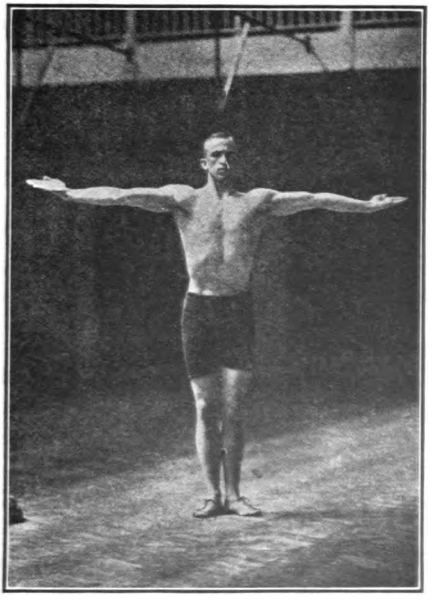

FIGURE 43.

(*f*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms forward and sideward. Count four, emphasizing the first and third counts. The arms should be thrust out forcibly, hands remaining closed, knuckles up.

(*g*) 1. ***Stride sideward right*** (***or left***) ***and raise arms sideward,*** 2. ***STRIDE.*** Full bend trunk forward and lower arms forward. Count two, drawling the second count (fig. 46). The knees remain straight and in the recovery the chest is elevated.

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FIGURE 44.

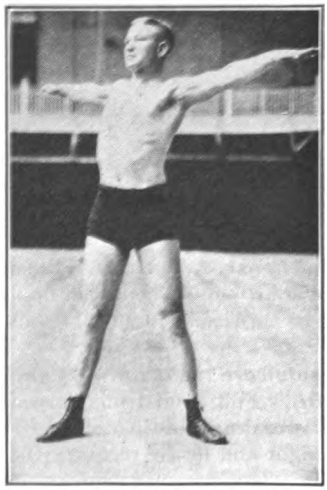

FIGURE 45.

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(*h*) From attention: Stretch arms forward, sideward, upward, and return in reverse order, rising on toes with the upward stretch. Count six and perform as in the sixth lesson.

(*i*) 1. ***Stride sideward right (or left) and raise arms forward,*** 2. ***STRIDE.*** Bend trunk sideward right and left and stretch arms to the sides horizontal (fig. 47). Count four, drawling the first and third counts. The knees remain straight throughout the exercise; chest elevated and back arched.

(*j*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms upward and downward. Count four, emphasizing the first and third counts.

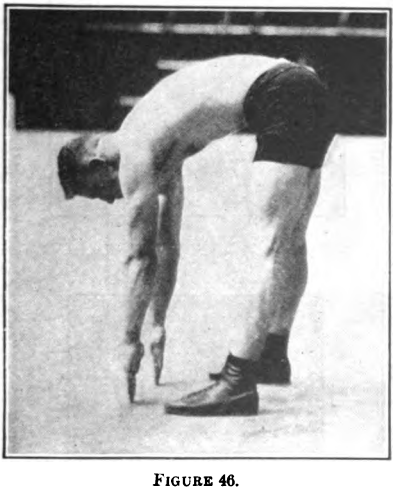

FIGURE 46.

In the upward thrust the knuckles are turned out and in the downward thrust they are turned forward.

(*k*) 1. ***Stride forward right (or left), arms forward,*** 2. ***STRIDE.*** Stretch arms sideward and raise right and left leg backward, alternately (figure 48). Count four, drawling the first and third counts.

(*l*) Breathing exercise: Inhale, with arm raisings; exhale, with arm lowerings.

h. Eighth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Right arm forward and upward,*** 2. ***RAISE.*** Swing right arm downward and left arm upward, alternately. Count two, emphasizing both counts. The arms remain fully extended throughout the swings.

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FIGURE 47.

FIGURE 48.

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(*b*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Rise on toes and extend arms upward. Count two, emphasizing the first count. The extension should be performed snappily.

(*c*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Repeat the neck bendings and turnings.

(*d*) 1. ***Stride sideward right*** (***or left***)***, arm sideward,*** 2. ***STRIDE.*** Turn trunk right and left and stretch arms upward. (Fig. 49.) Count four, drawling first and third counts. Knees remain straight, feet firm, and hips fixed.

FIGURE 49.

(*e*) From attention: Bend to squatting position, extend legs to the leaning rest, legs separated, bend and then extend arms, return to the squatting position, and recover the position of attention. Count six, emphasizing the first, second, fourth, and sixth counts. Perform as in *g* (2) (*e*) above.

(*f*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms forward, sideward, upward, and downward, alternately. Count eight, emphasizing the odd counts.

(*g*) 1. ***Stride sideward right*** (***or left***)***,*** 2. ***STRIDE.*** Bend trunk forward, back arched, and stretch arms obliquely forward-upward (fig. 50). Count two, drawling the first count.

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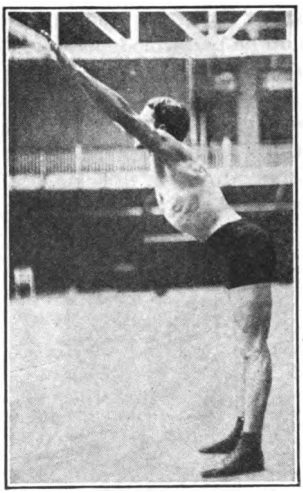

FIGURE 50.

FIGURE 51.

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(*h*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Extend arms forward, swing sideward and forward, and recover starting position. Count four, emphasizing the first and fourth counts. Perform briskly, keeping arms fully extended, palms down, in the swings.

(*i*) 1. ***Stride sideward right*** (***or left***), ***arm sideward,*** 2. ***STRIDE.*** Bend trunk backward and stretch arms upward (fig. 51). Count two, drawling the first count. In bending backward the chest is elevated and hips remain fixed.

FIGURE 52.

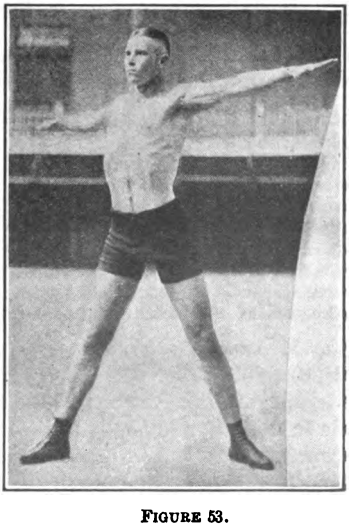

FIGURE 53.

(*j*) From attention: Flex arms horizontally and fling them sideward (fig. 52). Count two, emphasizing both counts. In flexing the arms the elbows are at the height of the shoulders.

(*k*) 1. ***Arms sideward and right*** (***or left***) ***leg forward,*** 2. ***RAISE.*** Swing the extended leg forward and backward. Count two, moderately fast. The leg being swung remains extended throughout the swing and the balance of the body should be maintained.

(*l*) Breathing exercise: Inhale, with forward-upward arm raising; exhale, lowering arms downward and backward.

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i. Ninth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From attention: Flex arms vertically, change to the horizontal flexed position (figs. 38 and 52). Fling arms sideward and return in reverse order. Perform all movements snappily.

(*b*) From attention: Swing arms upward and rise on toes. Count two, emphasizing the first count. The arms fully extended are swung upward forcibly, as the body is raised.

(*c*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Repeat neck exercises.

(*d*) 1. ***To the side straddle, hands on shoulders,*** 2. ***HOP.*** Turn trunk right and left and extend the arms sideward (fig. 53). Count four, drawling the first and third counts.

NOTE.—The side-straddle position is assumed by hopping and separating the legs sideward; in alighting, the toes come in contact with the ground first and then the heels are lowered. The position is assumed in two movements: at ***Hop,*** the hop and the separation of the legs take place, the count *one* being given just as the toes strike the ground, and at *two* the heels are lowered. In order to recover the position of attention, command: 1. ***To the position of attention,*** 2. ***HOP,*** *one, two.* At the command ***Hop,*** the hop and the closing of the legs take place; the count *one* is given just as the toes, with heels together and knees slightly bent, come in contact with the ground, and at *two* the position of attention is assumed by the heels being lowered, the knees being straightened and the arms being lowered to the sides.

(*e*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Bend knees, quarter, half, and full bend and thrust arms sideward. Count four, emphasizing the third count. The knees are bent to the quarter, then to the half, and finally to the full bend, the arms being thrust forward forcibly in conjunction with the last leg movement.

(*f*) 1. ***To the side straddle, arms overhead,*** 2. ***HOP.*** Bend trunk forward and swing arms between the legs (fig. 54). Count two, emphasizing both counts. The trunk is bent forward at the waist and the arms swung through to the rear as far as possible. Knees remain straight.

(*g*) 1. ***Hands on shoulders,*** 2. ***PLACE.*** Extend right arm sideward and left forward and reverse the extensions alternately. Count four, emphasizing the first and third counts. This being a coordination exercise, accuracy should be insisted upon.

(*h*) 1. ***To the side straddle, hands on hips,*** 2. ***HOP.*** Bend trunk sideward right and left and extend opposite arm upward (fig. 55). Count four, drawling the first and third counts. As the trunk is being bent sideward the opposite arm, palm in, is extended upward close to the head.

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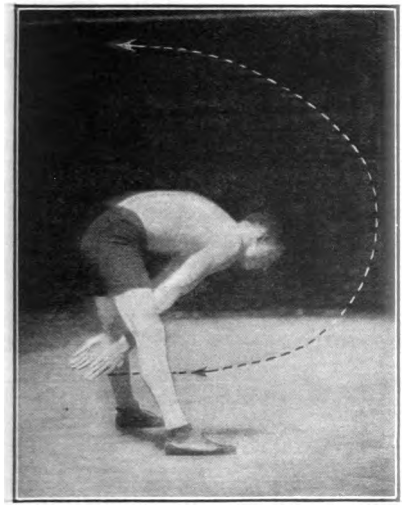

FIGURE 54.

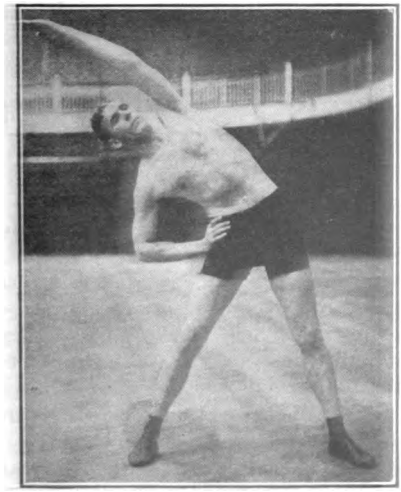

FIGURE 55.

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(*i*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Thrust arms upward, swing forward and downward, then forward and upward and recover. Count four, emphasizing the first and third counts. The arms are thrust upward forcibly, then relaxed in the downward and upward swings.

(*j*) 1. ***To the squatting position,*** 2. ***BEND.*** In that position extend the right and left legs sideward alternately (fig. 56). Count four, emphasizing the first and third counts. The leg is fully extended, only the toes coming in contact with the ground.

(*k*) From attention: Swing arms and right and left legs alternately sideward. Count two; perform moderately fast. Arms and legs are fully extended, toes depressed.

(*l*) Breathing exercise: Inhale, raising arms forward-upward; exhale, lowering arms backward with a circular motion.

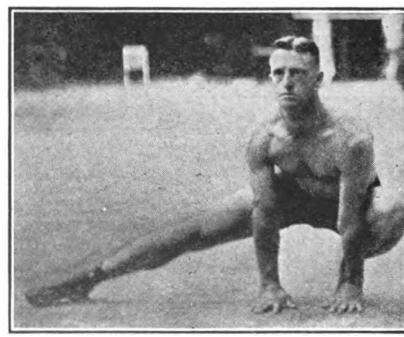

FIGURE 56.

j. Tenth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) 1. ***Arms upward, hands closed,*** 2. ***RAISE.*** Circle arms inward and outward. Count four moderately fast. The arms, fully extended, are crossed above in the first circle and below in the second.

(*b*) 1. ***Arms forward,*** 2. ***RAISE.*** Rise on toes and stretch arms downward and backward (fig. 57). Count two, drawling the first count. As the body is being raised on the toes the arms are stretched downward and to the rear, palms turned in as far as possible, and the chest is elevated.

(*c*) 1. ***Arms to thrust,*** 2. ***RAISE.*** Repeat the neck exercises as in *a* (2) (*c*) (fig. 15).

(*d*) 1. ***Stride forward right, arms upward,*** 2. ***STRIDE.*** Turn trunk to the right and lower arms, palms down to the side

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horizontal. Repeat with left foot forward (fig. 45). Count two, drawling both counts. The trunk is stretched at the waist and turned as far as possible, while the arms fully stretched are slowly lowered to the side horizontal, knees straight and feet firmly placed.

(*e*) 1. ***To the squatting position,*** 2. ***BEND.*** Extend both legs to the side straddle and recover (fig. 58). Count two, emphasizing both counts. The legs are extended laterally, feet flat on the ground, knees straight.

(*f*) 1. ***Hands on shoulders, hands closed,*** 2. ***PLACE.*** Strike arms sideward. Count two, emphasizing both counts.

FIGURE 57.

The arms are thrown out forcibly to the side horizontal with a striking motion, knuckles down, and brought back smartly.

(*g*) 1. ***To the side straddle, hands on shoulders,*** 2. ***HOP.*** Full bend trunk forward and extend arms downward, finger tips touching the ground, and recover; then bend trunk backward and extend arms, palms down, sideward and recover. Count four; the first, second, and fourth counts are snappy, the third is drawled. The first two movements are performed briskly, the third, bending the trunk backward, at the region of the shoulders is performed slowly, the final recovery being smart.

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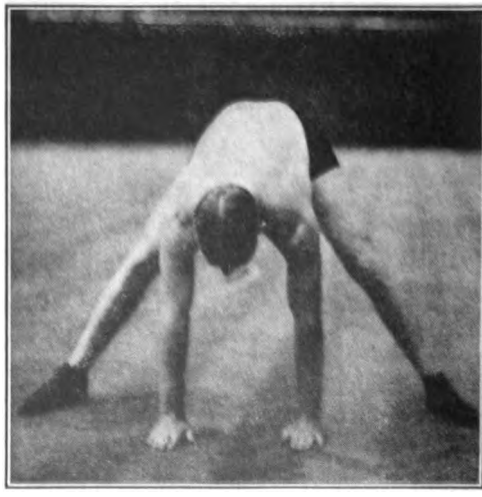

FIGURE 58.

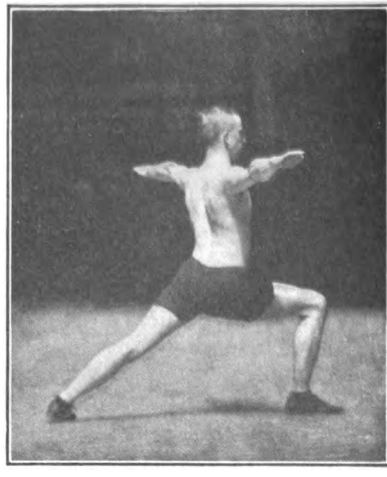

FIGURE 59.

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(*h*) **From attention**: Step position forward right and raise arms forward; lunge forward right and move arms sideward; resume the first position and recover the position of attention. Repeat with left leg (fig. 59). Count eight, if the exercise is performed alternately with the legs, emphasizing the second and sixth counts.

NOTE.—In the step position, the foot, with the leg extended, is moved forward about once its length and rests on the depressed toes. In the lunge the foot that is carried forward is planted firmly on the ground about three foot lengths from the

FIGURE 60.

stationary foot, the leg and thigh forming approximately at right angles; the other leg remains fully extended, with foot squarely on the ground. The head and trunk are erect and the chest is elevated.

(*i*) 1. ***To the side straddle, arms sideward.*** 2. ***HOP.*** Bend trunk sideward right or left, swinging opposite arm upward and the other downward, bending right or left knee (fig. 60). Count four, slightly drawling all the counts. In bending to the right, the left arm fully extended is raised and brought as close as possible to the head, palm in, and the right arm, palm

(4) (left) forward lunge (as far as possible to the rear). Keep knees straight, feet firm, and back arched.

(5) Arms to thrust, 2. RAISE. Move shoulders forward, ground backward, and recover. Count four, emphasizing the first, second, and fourth, and drawling the third count.

(6) Above attention, raise arms and extend leg forward, cross it sideward and lay backward and return in reverse order. Count eight, if performed alternately with the legs;

FIGURE 31.

all counts to be short and snappy. The leg is fully extended and the knee depressed.

(7) Breathing exercise: Relax and move shoulders forward and exhale; roll the shoulders back and elevate the chest and inhale; at the count and Recover, exhale and resume a normal attitude.

38. Difference between trained soldier and recruit courses. a. The trained soldier course differs from the recruit instruction in that its aim is more for the purpose of keeping the already trained men fit and prepared for any emergency rather than for instruction.

b. In the trained soldier's conditioning exercises, jumping, climbing, obstacle courses, vaulting, etc., difficulty is added by having the men carry part or all of their equipment. Beginning with the title other parts may be added gradually.

c. A morning period of 30 minutes devoted to setting-up exercises and marching or double time exercises, and an afternoon

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period, when practicable, devoted to supervised athletics, covering the obstacle course, vaulting or rifle exercises, will keep the trained soldier always fit.

89. Lessons for trained soldiers.—Six lessons for the trained soldier are given below. They serve as examples to instructors who may at their discretion substitute others so long as they adhere to the general principles prescribed. The amount and degree of work must be fitted to the capabilities of the men and

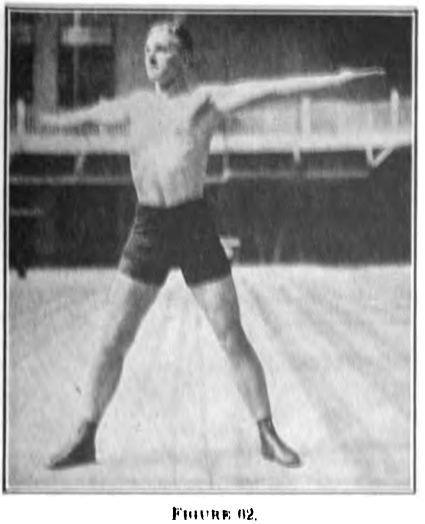

FIGURE 62.

the time allotted to this training. In these lessons the commands are omitted, since in all cases they would be a repetition of those given in the recruit course. The starting positions, from which an exercise is performed, are indicated in each exercise, and instructors following those laid down in the recruit course will supply the necessary commands to have these positions assumed properly.

a. First lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From attention: Flex arms horizontally, fling arms sideward, flex and recover. Count four, emphasizing the first and second counts.

(*b*) From the squatting position, arms to the side horizontal, palms up; rock on toes and circle arms backward (fig. 61).

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Count two slowly. The knees are extended and bent with a rocking motion, each knee movement being accompanied by a circling of the extended arms. Trunk and head erect and chest elevated.

(*c*) From hands on hips: Perform the neck exercises.

(*d*) From the side straddle, arms upward: Turn trunk to the right and left and lower arms to the side horizontal, palms up (fig. 62). Count four, drawling the first and third counts. Perform with feet firm, knees straight, hips fixed, and chest elevated.

FIGURE 63.

(*e*) From attention: Bend knees to the squatting position. hands flat on ground, extend legs to side straddle stand, hands remain on ground, recover squatting position and attention (fig. 63). Count four, emphasizing all counts.

(*f*) From attention: Raise arms to front horizontal, then upward and circle arms backward and downward. Count three, emphasizing the first and second counts, and drawl the last count. Perform the circle slowly.

(*g*) From the side straddle, hands on hips: Full bend the body forward, extending arms downward and recover starting position; then bend trunk backward and extend arms sideward, [illegible] down (figs. 64 and 65). Count four, emphasizing the [illegible]ond, and fourth, and drawling the third count.

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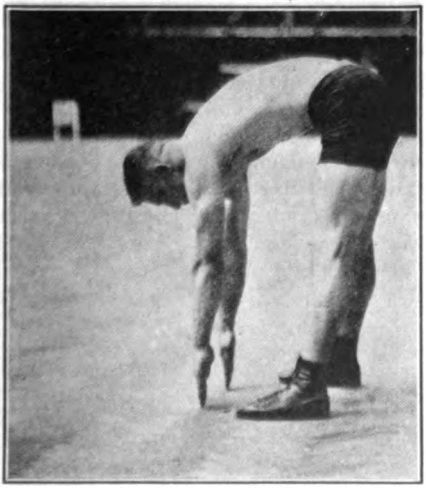

FIGURE 64.

FIGURE 65.

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(*h*) *From attention:* Curl shoulders forward and backward (fig. 37). Count two, drawling the second count.

(*i*) *From the side straddle, arms to the side horizontal:* Bend trunk sideward and right left, bending right and left knees, swinging the opposite arm upward and the other downward-backward (fig. 60). Count four, drawling the first and third counts. After each bending, the starting position is resumed.

(*j*) *From attention:* Hop to the side straddle and swing arms sideward and upward and recover the starting position. To be performed without pausing.

(*k*) *From attention:* Stride forward right (or left) and raise arms to front horizontal, extend the left (or right) leg backward

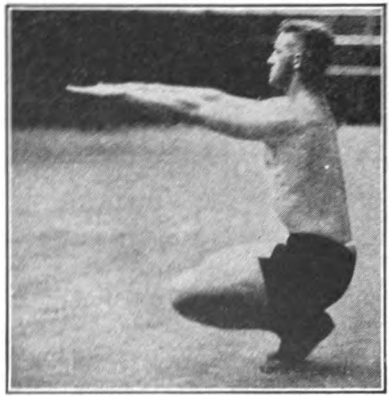

FIGURE 66.

and stretch arms sideward, palms down, and return in reverse order (fig. 48). Count four, if taken right and left; count eight, emphasizing the second and sixth counts.

(*l*) Breathing exercise: With arm raisings.

b. Second lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From attention: Flex arms vertically, raise elbows sideward, fling arms sideward, and return in reverse order (figs. 38 and 52). Count four, emphasizing the first and third counts.

(*b*) From hands on hips: Full bend knees and extend arms forward, stretch arms sideward, palms down, and return in reverse order (fig. 66). Count four, slightly drawling all counts but the last.

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(*c*) From arms to thrust: Perform neck exercises.

(*d*) From attention: Stride forward right (or left) and raise arms to front horizontal, turn trunk right (or left) and stretch arms sideward, palms up (fig. 67). Count four, if performed to the right and left. Count eight, if alternately, drawling the second and sixth counts.

(*e*) From the squatting position: Extend legs backward to the leaning rest and recover. Count two, accenting both counts.

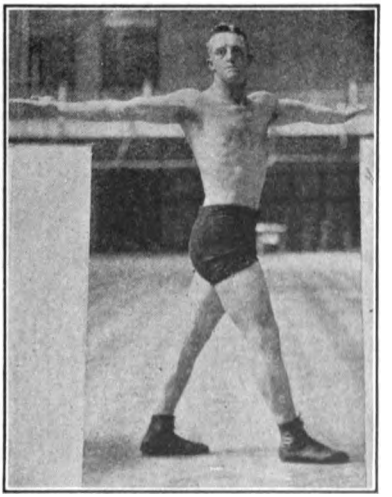

FIGURE 67.

(*f*) From attention: Stretch arms forward, sideward, upward, sideward, forward, and recover. Count six, drawling all counts except the last, which should be snappy.

(*g*) From the side straddle, arms overhead, hands closed: Full bend trunk forward, slightly bending knees, and swing arms between legs, swing arms upward, rising on toes and bending trunk backward slightly. Count two, slowly, accenting the recovery.

(*h*) From arms to thrust: Move shoulders forward, upward, backward, and recover. Count four, drawling all but the last count.

(*i*) From the side straddle, arms upward, fingers laced: Sway trunk right and left (fig. 68). Count two, drawling both count

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(*j*) From hands on hips: Hop alternately, first on the right and then on the left foot, extending the other leg forward, toes depressed. Count four moderately fast.

(*k*) From attention: Raise arms, right (or left) leg sideward, move arms and leg forward, and return in reverse order. Count four, snappily. Every position should be held momentarily.

(*l*) Breathing exercise: Curl shoulders forward and exhale, then backward and inhale.

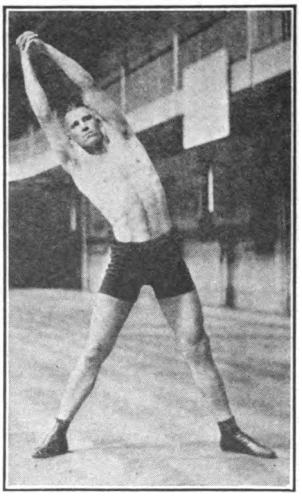

FIGURE 68.

c. Third lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From arms to thrust: Thrust arms forward, swing sideward, swing forward, and recover. Count four, accenting the first count.

(*b*) From forearms flexed vertically: Extend arms upward and rise on toes. Count two, accenting the first.

(*c*) From arms to thrust: Perform neck exercises.

(*d*) From the side straddle, arms forward, fingers laced: Turn the trunk right and left alternately; swing arms in the same direction (fig. 69). Count four, accenting all of the counts.

(*e*) From full bend knees position, hands on hips: Slowly extend the knees to the on-toes position and stretch arms over-

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head and recover the bent-knee position quickly. Count two, drawling the first and accenting the second.

(*f*) From side-straddle position, hands on hips: Full bend trunk and extend arms downward and recover the starting position; then extend arms upward and rise on toes.

(*g*) From arms to thrust: Thrust arms upward, swing arms downward and upward and recover. Count four, accenting all of the counts.

(*h*) From attention: Bend to the squatting position, extend legs backward to the leaning rest, bend and extend arms, and

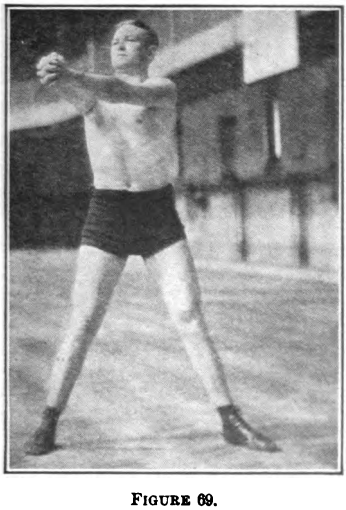

FIGURE 69.

recover the squatting position and attention. Count six, drawling the third and fourth counts, accenting the others.

(*i*) From hands on shoulders, hands closed: Strike arms sideward. Count two, accenting both counts.

(*j*) From the side straddle, hands on hips: Bend trunk forward and circle it to the right (or left). Count six, drawling all the counts. The body is bent forward and relaxed at the waist (1), then moved to the right side-bend position (2), then to the back bend (3), then to the left side bend (4), then to the forward-bend position (5), and recovered (6). Perform very slowly.

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(*k*) From attention: Step position sideward right, arms i front horizontal, lunge sideward right and swing arms to sid horizontal, and recover in reverse order (fig. 70). Count eigh if performed alternately, and accent all counts. Every positio should be held momentarily.

(*l*) Breathing exercise: With arm raisings.

d. Fourth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From arms to thrust: Thrust right arı upward and left downward and reverse. Count four, accentin all counts.

FIGURE 70.

(*b*) From hands on shoulders: Extend arms upward and swing right leg forward raising on toes of left and recover. Count fou if performed alternately, accenting the first and third counts.

(*c*) From hands on hips: Perform neck exercises.

(*d*) From the side straddle, hands on hips: Turn trunk to the right and left alternately and extend arms overhead. Count four, drawling the first and third counts.

(*e*) From the squatting position, arms in the front horizontal: Rock on knees and swing arms downward and forward. Count two, accenting both counts.

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(*f*) From the side straddle, hands on hips: Bend trunk forward, extending right arm downward and left upward and bend right knee and repeat, reversing arm extensions (fig. 71). Count four, accenting all the counts. The feet remain firm and the head is turned to the upper hand.

(*g*) From forearm flexed vertically: Extend the right arm upward and the left downward and reverse. Count four smartly.

(*h*) From the squatting position: Extend the right and left leg backward alternately in two motions. Count two, accenting

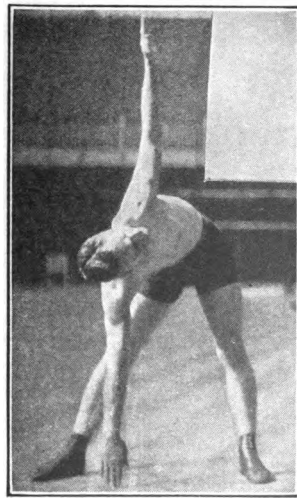

FIGURE 71.

both counts. As the right leg is drawn up the left is extended, and as the left is drawn up the right is extended.

(*i*) From hands on shoulders: Move elbows backward and upward. Count two smartly.

(*j*) From the side straddle, arms sideward: Bend the trunk sideward right and left, bending the knee on the same side, swinging the opposite arm upward and the other down and backward (fig. 60). Count two slowly. In this exercise the starting position is not resumed until the command ***Halt*** is given.

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(*k*) From attention: Step position obliquely forward to the right (or left), the right (or left) arm being raised obliquely forward-upward, left obliquely downward-backward; lunge obliquely forward right, reversing the position of the arms recover the first position and attention (figs. 72 and 73). Count eight, if performed to the right and left, accenting all the counts Every position to be held momentarily.

(*l*) Breathing exercise: Bend the trunk forward, slightly relaxed and exhale; resume the position of attention with the inhalation.

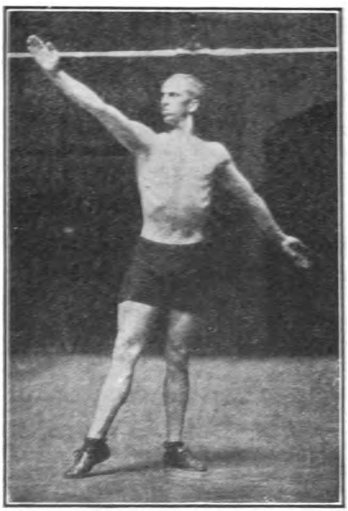

FIGURE 72.

FIGURE 73.

e. Fifth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From hands on shoulders: Extend arms upward, swing downward and upward and recover. Count four, accenting all of the counts.

(*b*) From hands on shoulders: Extend arms upward and hop from toes. Count two, accenting all counts.

(*c*) From arms to thrust: Neck bendings and turnings.

(*d*) From the side straddle, arms sideward: Turn trunk right and left and stretch arms upward (fig. 74). Count four, drawling the first and third counts.

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(*e*) From attention: Bend to the squatting position, extend legs backward to the leaning rest, draw legs up to the side straddle stand, hands remain on the ground; return to the leaning rest, recover the squatting position and the position of attention (figs. 41 and 63). Count six, accenting all the counts. Squat (1), leaning rest (2), straddle stand (3), leaning rest (4), squat (5), attention (6).

(*f*) From arms upward: Bend trunk forward, back arched and lower arms to side horizontal; recover starting position, then

FIGURE 74.

FIGURE 75.

bend trunk backward and lower arms to side horizontal and recover (figs. 33 and 75). Count four, drawling the first and third counts.

(*g*) From attention: Raise arms forward, move sideward, raise upward and return in reverse order. Count six in quick succession.

(*h*) From attention: Bend to the squatting position, extend legs to the leaning rest, bend and straighten elbows, recover the squatting position and attention. Count six, accenting all but the third and fourth counts.

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(*i*) From arms to thrust: Thrust arms forward, sideward, upward, and downward, alternately. Count eight, accenting all the counts.

FIGURE 76.

(*j*) From the side straddle, arms overhead: Bend trunk obliquely forward right and left and swing arms downward and upward (fig. 76). Count four, accenting all counts.

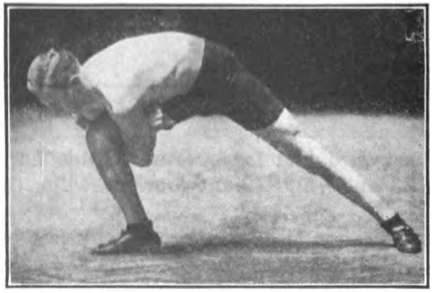

FIGURE 77.

(*k*) From attention: Hop to the side straddle and clap hands overhead, hop and close legs, swinging arms downward, clapping hands behind back.

(*l*) Breathing exercise: With arm raisings.

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f. Sixth lesson.—(1) *Starting positions.*

(2) *Exercises.*—(*a*) From arms to thrust: Thrust arms forward, swing sideward, swing forward, striking palms together and recover. Count four, accenting all counts.

(*b*) From arms to thrust: Hop four times on the toes of the right and left foot alternately, extending the other leg forward. Count eight in quick succession.

(*c*) From hands on hips: Neck bending and turning.

(*d*) From the side straddle, arms forward: Turn trunk right and left and stretch arms sideward, palms up (fig. 62). Count four, drawling the first and second counts.

FIGURE 78.

(*e*) From the squatting position: Hop on toes in the squatting position. Count two, accenting both counts.

(*f*) From attention: Hop to the side straddle, arms sideward, bend trunk obliquely forward and encircle right thigh, knee bent, with arms; recover the straddle position with arms sideward and recover attention, repeat to the left. (Fig. 77.) Count eight, accenting all counts. The arms should encircle the thigh forcibly, the other leg to remain fully extended.

(*g*) From attention: Flex arms vertically, raise elbows to horizontal flexion, fling arms sideward and return in reverse order. Count six, accenting all counts.

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(*h*) From attention: Bend to the squatting position, extend legs backward to the leaning rest, squat through between the arms to a sitting posture, turn right about to the leaning rest, resume the squatting position and recover attention. Count six, accenting all counts.

(*i*) From arms sideward, palms up: Circumduct arms backward (fig. 44). Count two, accenting both counts.

(*j*) From side straddle, arms sideward: Bend trunk sideward right and left and swing opposite arm upward, the other downward and bending knee on the side to which the trunk is bent (fig. 60). Count four if the starting position is resumed after each bending, two if the trunk is bent from side to side; all counts to be dominant.

(*k*) From hands on hips: Swing the extended right and left leg forward alternately and extend the arm on the same side forward, bring the foot in contact with the hand (fig. 78). Count four, accenting the first and third counts. The foot should be brought to the hand; not the hand, to the foot; both knees remain straight.

(*l*) Breathing exercise: With arm raisings.

Section VI

MASS COMMANDS

40. Origin.—Training men en masse through the medium of giving their own commands originated and was first introduced at one of the officers' training camps early in 1917. From the very beginning this method practically revolutionized the old method of recruit instruction, both as to the time required and the efficiency obtained. This method of instruction has nothing in common with any of the cadence drills.

41. Results obtained.—*a.* As a result of giving these mass commands, diffidence and timidity and the awkwardness due to them disappear almost immediately and in their place confidence, self reliance, assertiveness, enthusiasm, and proficiency appear.

b. Through this method it is possible, by constituting each individual virtually his own drill instructor, to give to large masses the benefits accruing from individual instruction. The principal advantage of this method over the old one lies in the fact that each individual is made to rely upon his own initiative and intelligence, as he must learn not only to give the commands properly but also how to perform properly the movement required by the command.

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c. As each individual is required to give the commands as if he alone were giving them to the entire unit of which he is a member, the volume and smart of these combined voices literally impel every man to extend himself to the limit in performing the movements with snap and precision. By giving the commands in unison with his comrades, coordination and a sense of cadence are developed from the very beginning.

d. In the setting-up exercises, the giving of mass commands teaches the proper cadence of an exercise, when to accentuate or emphasize a count and when to draw it, and how, by proper intonation, to convey the idea of the manner in which a movement is to be performed. In other words, the man learns the "feel" of a movement and how, if necessary, to convey this to others. It also develops the voice.

42. Method of procedure in drills.—a. A thorough explanation of this method of instruction should be given to the men at the beginning; particular stress being laid upon the advantages it holds for them over the old methods, in that it affords them the best possible opportunity to develop into efficient drill instructors themselves.

b. Each movement should be explained in detail and illustrated before it is attempted by the mass, and the necessary commands for putting the required movement into operation should be rehearsed, without performing the movement, until the mass has learned to give the commands properly. When this has been accomplished, the movement should be performed at the command of the mass.

c. The interval between the preparatory command and the command of execution will depend upon the number of men being drilled and their degree of proficiency; however, it is a serious error to make this interval too short.

d. Instructors will find it a great advantage to learn to give their preparatory commands with a rising inflection, lifting the entire command with an intonation that rouses the men and makes them eager to respond when the command of execution is given. In no other phase of the soldier's training are the good or bad qualities of an instructor reflected as accurately as they are in the giving of mass commands. Since it is only natural that the men should endeavor to emulate their instructor, the success or failure of this instruction may be accepted as a fair criterion of an instructor's ability to handle men.

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e. To overcome timidity and self-consciousness, which are always present with beginners, and to instill confidence, self-reliance, and assertiveness, and also to teach the men how to use their voices properly when giving commands, the instructor should frequently repeat the voice exercises described in paragraph 24. These exercises should first be done in an ordinary tone of voice and then gradually increased in volume until each man is capable of performing these exercises with the full power of his voice.

43. Mass commands for the setting-up exercises.—*a. General.*—(1) In the performance of these exercises, mass commands are usually confined to the simpler exercises, those requiring short preparatory commands, commands of execution, and the commands of continuance and discontinuance.

(2) Ordinarily, the best plan is for the instructor to describe the exercise he requires, giving such instructions as he deems necessary relative to the exercise or its cadence, and then have the mass give the necessary commands to put it into operation.

(3) An exercise is discontinued on a signal from the instructor, raising one or both arms, at the beginning of the last repetition. On this signal the mass will count, *one,* two, or *one,* two, three, ***Halt,*** as the case may be, giving the first count with a distinct rising inflection.

Example:

Instructor: 1. ***Assume the thrusting position,*** 2. ***COMMAND.***

Mass: 1. ***Arms to thrust,*** 2. ***RAISE.***

Instructor: 1. ***Thrust arms forward, swing sideward and forward and recover, in four counts, accenting the first and third,*** 2. ***COMMAND.***

Mass: 1. ***In cadence,*** 2. ***EXERCISE,*** *one,* two, *three,* four, etc.

Instructor: ***Signals for discontinuation.***

Mass: *One,* two, three, ***HALT.***

(4) In all of these exercises, in order to insure a prompt and uniform response, the mass will use the command ***In cadence*** as a preparatory command. This rule is general.

(5) Mass commands *must not be required in the trunk* (except when the trunk movements are relaxed ones), the *neck* or *breathing exercises,* nor in any other exercises in which they will interfere with proper breathing.

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c. *Mass commands for the starting positions* (par. 32).—Commands for the resumption of the position of attention do not [illegible]. They are, therefore, given only in c (1) (a) below. In [illegible] movements the command of execution should be indicative of the movement required; thus movements in the same [illegible] are performed at the command ***Move***; movements to a [illegible] are at the command ***Raise***; to a lower one at the command ***Lower***; and those movements where the hands come in [illegible] with the body are performed at the command ***Place***.

Example.

1 Instructor: 1. ***Assume the front horizontal position***, 2. ***COMMAND.***

Mass: 1. ***Arms forward***, 2. ***RAISE.***

Instructor: 1. ***Resume the position of attention***, 2. ***COMMAND.***

Mass: 1. ***Arms***, 2. ***DOWN.***

2 Instructor: 1. ***Assume the side horizontal position***, 2. ***COMMAND.***

Mass: 1. ***Arms sideward***, 2. ***RAISE.***

3 Instructor: 1. ***Assume the perpendicular position, with a forward or a lateral motion***, 2. ***COMMAND.***

Mass: 1. ***Arms upward, with a forward (or lateral motion***, 2. ***RAISE.***

4 Instructor: 1. ***Assume the thrusting position***, 2. ***COMMAND.***

Mass: 1. ***Arms to thrust***, 2. ***RAISE.***

5 Instructor: 1. ***Assume the hands on hips position***, 2. ***COMMAND.***

Mass: 1. ***Hands on hips***, 2. ***PLACE.***

6 Instructor: 1. ***Assume the hands on shoulders position***, 2. ***COMMAND.***

Mass: 1. ***Hands on shoulders***, 2. ***PLACE.***

(7) Instructor: 1. ***Assume the fingers laced position***, 2. ***COMMAND.***

Mass: 1. ***Fingers in rear of head***, 2. ***LACE.***

(8) Instructor: 1. ***Assume the various starting positions in sequence***, 2. ***COMMAND.***

Mass: 1. ***Arms forward***, 2. ***RAISE***, 3. ***Sideward***, 4. ***MOVE***, 5. ***Upward***, 6. ***RAISE***, 7. ***Fingers in rear of head***, 8. ***LACE***, 9. ***Hands on shoulders***, 10. ***PLACE***, 11. ***Hands on hips***, 12. ***PLACE***, 13. ***Arms to thrust***, 14. ***MOVE***, 15. ***Arms***, 16. ***DOWN.***

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c. Examples of mass commands for the setting-up exercises.—(1) The following examples will suffice to familiarize instructors with the method of procedure to be followed in applying the mass commands to the setting-up exercises. The method of discontinuance and the return to the position of attention does not vary and is applicable in all cases. It is given only in (*a*) below.

(*a*) Instructor: 1. ***Assume the front horizontal position,*** 2. ***COMMAND.***

Mass: 1. ***Arms forward,*** 2. ***RAISE.***

Instructor: 1. ***Swing arms sideward and forward, in two counts,*** 2. ***COMMAND.***

Mass: 1. ***In cadence,*** 2. ***EXERCISE.***

Instructor: 1. ***Signals for discontinuation.***

Mass: 1. ***One,*** 2. ***HALT.***

Instructor: 1. ***Resume attention,*** 2. ***COMMAND.***

Mass: 1. ***Arms,*** 2. ***DOWN.***

(*b*) Instructor: 1. ***Assume hands on shoulders position,*** 2. ***COMMAND.***

Mass: 1. ***Hands on shoulders,*** 2. ***PLACE.***

Instructor: 1. ***Rise on toes and extend arms upward, in two counts, accenting the first,*** 2. ***COMMAND.***

Mass: 1. ***In cadence,*** 2. ***EXERCISE.***

Discontinue and resume attention as in (*a*) above.

(*c*) Instructor: 1. ***Assume to thrusting position,*** 2. ***COMMAND.***

Mass: 1. ***Arms to thrust,*** 2. ***RAISE.***

Instructor: 1. ***Full bend knees and thrust arms forward, in two counts, accenting the second,*** 2. ***COMMAND.***

Mass: 1. ***In cadence,*** 2. ***EXERCISE.***

Discontinue as in (*a*) above.

(*d*) Instructor: 1. ***Assume hands on shoulders position,*** 2. ***COMMAND.***

Mass: 1. ***Hands on shoulders,*** 2. ***PLACE.***

Instructor: 1. ***Extend arms forward, swing sideward and forward and recover, in four counts, accenting the first and last counts,*** 2. ***COMMAND.***

Mass: 1. ***In cadence,*** 2. ***EXERCISE.***

Discontinue as in (*a*) above.

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(e) Instructor: 1. *Assume thrusting position.* 2. *COMMAND.*

Mass: 1. *Arms to thrust.* 2. *RAISE.*

Instructor: 1. *Move shoulders forward, upward, backward, and recover, in four counts, drawing out all but the last count.* 2. *COMMAND.*

Mass: 1. *In cadence.* 2. *EXERCISE.*

Discontinue as in (a) above.

(f) Instructor: 1. *Bend to the squatting position, extend legs backward to the leaning rest, resume the squatting position, and recover the position of attention, in four counts, accenting the first and last.* 2. *COMMAND.*

Mass: 1. *In cadence.* 2. *EXERCISE.*

Discontinue as in (a) above.

(g) Instructor: 1. *Assume the side straddle position, hands on hips.* 2. *COMMAND.*

Mass: 1. *To the side straddle, hands on hips.* 2. *HOP.*

Instructor: 1. *Full bend trunk forward, relaxed, and extend arms downward, recover starting position, rise on toes and stretch arms upward and recover starting position, in four counts, performing first two and the fourth movements snappily and the third slowly.* 2. *COMMAND.*

Mass: 1. *In cadence.* 2. *EXERCISE.*

In this exercise the position of attention is resumed at the following commands:

Instructor: 1. *Resume the position of attention.* 2. *COMMAND.*

Mass: 1. *To the position of attention.* 2. *HOP, one, two.*

(h) Instructor: 1. *Assume the squatting position, arms sideward, palms up.* 2. *COMMAND.*

Mass: 1. *To the squatting position, arms sideward, palms up.* 2. *BEND.*

Instructor: 1. *Rock on knees and circumduct arms backward, in two counts.* 2. *COMMAND.*

Mass: 1. *In cadence.* 2. *EXERCISE.*

(2) To resume the position of attention at the instructor's command, the mass commands: 1. *To the position of attention.* 2. *RISE.*

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SECTION VII

MARCHING

44. General rules.—*a.* All steps and marchings execute from the halt, except right step, begin with the left foot.

b. The length of the full step in quick time is 30 inche measured from heel to heel, and the cadence is at the rate of 12 steps per minute.

c. The length of the full step in double time is 36 inches; th cadence at the rate of 180 steps per minute.

d. The instructor, when necessary, indicates the cadence c the step by calling, one, two, three, four, the instant the left an right foot, respectively, should be planted.

e. In marching, the head and trunk should remain immobile but without stiffness, head erect, body well stretched from th waist, chest arched, chin up, and arms swinging naturally abou 6 inches to the front and about 3 inches to the rear of the body

f. In double timing the forearms are raised to a horizonta position along the waist line, fingers closed, knuckles out, th arms swinging naturally. The step is an easy run with the weigh of the body forward and the muscles relaxed.

g. In performing exercises while marching at quick time an double time, the normal cadence is used except when the natur of the exercise necessitates a different cadence.

45. Leg and foot exercises on the march.—*a.* The me should march in a single file at proved intervals. The comman that causes and discontinues the performance should be give as the left foot strikes the ground.

b. On the march, to discontinue the exercise, command: 1 ***Quick time,*** 2. ***MARCH,*** instead of ***HALT,*** as when standing

c. The following leg and foot exercises are executed at th command ***March,*** the execution always beginning with the lef leg or foot:

(1) 1. ***On toes,*** 2. ***MARCH.***

(2) 1. ***On heels,*** 2. ***MARCH.***

(3) 1. ***On toes with knees straight,*** 2. ***MARCH.***

(4) 1. ***Swing extended leg forward, ankle high,*** 2 ***MARCH.***

(5) 1. ***Swing extended leg forward, knee high,*** 2 ***MARCH.***

(6) 1. ***Swing extended leg forward, waist high,*** 2 ***MARCH.***

(7) 1. ***Raise heels,*** 2. ***MARCH.***

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(8) 1. ***Raise knees, chest high,*** 2. ***MARCH.***

(9) 1. ***Circle extended leg forward, knee high,*** 2. ***MARCH.***

(10) 1. ***Swing extended leg backward,*** 2. ***MARCH.***

(11) 1. ***Swing extended leg sideward,*** 2. ***MARCH.***

(12) 1. ***Raise knee and extend leg forward,*** 2. ***MARCH,*** in two counts.

(13) 1. ***Cross step,*** 2. ***MARCH.*** As the legs move forward they are crossed. The body does not turn.

(14) 1. ***Continuous change step,*** 2. ***MARCH.*** The left foot is advanced and planted; the toes of the right are then advanced near the heel of the left in the halting step; the left foot is then advanced about half a step (15 inches) and the right foot is advanced with the full step and planted; the toes of the left foot are then brought up to the heel of the right foot, which advances a half step, when the left foot is advanced a full step, etc.

(15) 1. ***Knee-rocking step,*** 2. ***MARCH.*** As each foot is planted it is accompanied by a slight bending and the straightening of the corresponding knee; the other leg remaining fully extended, heel raised.

(16) 1. ***Lunging step,*** 2. ***MARCH.*** The length of the step is 45 inches, the knee in advance being well bent; the other leg remaining fully extended, heel raised; trunk erect.

(17) 1. ***Cross step, raising knees,*** 2. ***MARCH.*** Execute the cross step and raise the knees. The cross step may also be executed in combination with the swings of the extended leg.

(18) 1. ***Continuous change step hop,*** 2. ***MARCH.*** Execute the ordinary change step, hopping with the change.

(19) 1. ***Forward gallop hop,*** 2. ***MARCH.*** The left foot is advanced and planted, the right foot is brought up in rear as in the halting step; this is done four times in succession. The same is done four times with the right foot in advance, etc.

(20) 1. ***Sideward gallop hop,*** 2. ***MARCH.*** The left foot is advanced, body turning to the right; four hops are then executed sideward on the left foot, followed by the right; at the fourth hop the body is turned to the left about and four hops executed sideward on the right foot followed by the left, etc.

(21) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Bend trunk forward and extend left*** (*or right*) ***arm downward,*** 4. ***MARCH.*** The left (right) knee is bent and the finger tips are brought in contact with the ground. A full recovery should be insisted upon.

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(22) Same exercise, extending both arms downward.

(23) 1. ***Hands on shoulders,*** 2. ***PLACE,*** 3. ***Extend arms upward and rise on right (left) toe,*** 4. ***MARCH.***

(24) 1. ***Hands on hips,*** 2. ***PLACE,*** 3. ***Swing extended legs forward, breast high, and extend arms on same side forward,*** 4. ***MARCH.*** The foot and hand come in contact.

(25) 1. ***To the squatting position, hands on hips,*** 2. ***BEND,*** 3. ***In that position, forward,*** 4. ***MARCH.***

(26) 1. ***To the squatting position, hands on the ground,*** 2. ***BEND,*** 3. ***"Bear walk",*** 4. ***MARCH.*** The hand and foot on the same side move forward simultaneously.

(27) Same moving the opposite foot and hand forward simultaneously.

(28) 1. ***To the squatting position, hands on the ground,*** 2. ***BEND,*** 3. ***"Kangaroo hop" forward,*** 4. ***MARCH.*** The hands are moved forward, followed by the feet, in a series of short hops.

46. Setting-up exercises on the march.—All of the arm and shoulder exercises and some of the trunk exercises described in the setting-up exercises may be performed while marching precisely as they are done while standing, except that every initial movement should begin on the left foot.

47. Exercises in double timing.—*a.* For the purpose of conditioning and training, double timing may be carried on as a running exercise; that is, it is carried on on the toes and balls of the feet with heels raised off the ground. The men will take up this method of double timing at the command: 1. ***On toes double time,*** 2. ***MARCH,*** and continue until the command: 1. ***Double time,*** 2. ***MARCH*** is given, when the ordinary double-time step is resumed.

b. While on the double, the instructor may vary the position of the arms by commanding—

1. 1. ***Arms forward.*** 2. ***RAISE.***
2. 1. ***Arms sideward.*** 2. ***RAISE.***
3. 1. ***Arms upward.*** 2. ***RAISE.***
4. 1. ***Hands on hips.*** 2. ***PLACE.***
5. 1. ***Hands on shoulders.*** 2. ***PLACE.***

c. He may also combine the following leg exercises with the double time:

1. 1. ***Cross step.*** 2. ***RAISE.***
2. 1. ***Raise knees.*** 2. ***RAISE.***

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3. 1. ***Raise heels,*** 2. ***MARCH.***
4. 1. ***Swing legs forward,*** 2. ***MARCH.***
5. 1. ***Swings legs backward,*** 2. ***MARCH.***
6. To discontinue these exercises, but still continue the double ing, command: 1. ***Double time,*** 2. ***MARCH.***

SECTION VIII

MASS ATHLETICS AND GROUP GAMES

48. **Value of mass athletics.**—Mass athletics constitute a st effective agent not only for physical well-being, but also morale both in cantonment and in the field. The develop- nt of mass athletics throughout the Army is most desirable.

49. **Major athletic sports.**—The major athletic sports, such football, baseball, track and field events, and lacrosse, are t treated in this manual. This work covers mass athletics ly insofar as they apply to group games and individual ntests.

50. **Athletic training in the service.**—The value of athletic aining in the service is dependent upon the effect it has upon e mass, rather than upon the individual few. In order to eet the requirements of the service, the training should be oad enough in the method of its application to include the velopment of each man to the extent of his capabilities in ose branches of athletics which would be most useful to the rvice. In other words, it should have an applicable value, e educational, and not spectacular, for it is the ability of the verage of the mass that determines the efficiency of a fighting achine. Consequently it should be the aim of instructors to ace this phase of the training of the men upon precisely the me plane as that of other portions of the soldier's education. his training should be conducted out of doors, and in arranging ograms for the outdoor period, instructors should alternate e work with the setting-up exercises, gymnastic contests, and mnastic games.

51. **Group contests and games.**—*a.* Group contests and ames in which a large number may be employed simultaneously d in which the attention and interest of all those participating ust constantly be on the alert should always be given the eference over those in which only a few are engaged at the me time and which do not require the alertness of mind entioned above.

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[illegible] over the head of the first man to the second man [illegible] until it reaches the last man. Each man in the column [illegible] and pass the ball. The end man across the ball [illegible] over the backs of the men. If the column is front or [illegible] will assume a column position. As soon as he reaches the front of the line he turns to the distance line, and after [illegible] it he returns to the front of his column and starts the ball back over his head. When each man has carried the ball [illegible] the last man finishes the race when he crosses the distance line.

[illegible] ONE ONE.—Pupils stand in the [illegible] position [illegible] the ball on the line in front of the first contestant. At the start signal the ball is rolled back between the legs of the [illegible] in the column until it reaches the rear of the column where [illegible] or the end man who runs forward to the front of the line in front of him to the left of the second to the front of the third, and until he has reached the front line whereupon he turns to the distance line which he crosses. Returning to the front of the column he starts the ball back between his legs. Then each man in turn carries the ball forward to the last man who finishes the race when he crosses the distance line.

[illegible] may be [illegible] or be assigned to be [illegible] [illegible] the [illegible] [illegible]

II. [illegible] [illegible].—[illegible] [illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible] TWO.—Pupils stand in column [illegible] with a distance of [illegible] between [illegible] at the signal to start, [illegible] the first in the column stoop the last man, assume a straddle position. The last man will take a [illegible] over the backs of the men in the column following to the front to the last man. As soon as the last man reaches the front of the column, he assumes a straddle position, whereupon the man who followed [illegible] has leaped over the backs of the men behind him [illegible] he pushes forward [illegible] the distance line [illegible]

[illegible] THE [illegible].—[illegible] assume the [illegible] position. Each [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

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[illegible] back over the head by the first [illegible] it reaches the last man [illegible] cross and pass the ball [illegible] over the back of the men [illegible] assume a stooping position. [illegible] of the line he runs [illegible] it, he returns to the [illegible] back over his head. [illegible] and the last man [illegible] across the distance line.

Dead ball. Players [illegible] the ball on the line in front of the [illegible] start signal, the ball is rolled [illegible] the column until it reaches the last man [illegible] picked up by the end man [illegible] in front of him, to the left of the [illegible] the third, etc., until he has reached the [illegible] to the distance line which he [illegible] front of the column he [illegible] each man he passes the [illegible] made when he [illegible] the distance line.

NOTE. A shoe stone, or [illegible] may be used [illegible]

83. Novelty relay race. [illegible]

Participants per team	[illegible]
Minimum	8
Maximum	20

a. Leap frog. [illegible] Players stand in a column of files with a distance of 4 feet between individuals. At the signal to start, all the men in the column, except the last man, assume a stooping position. The last man will take a long leap over the backs of the men in the column followed by the next to the last man, etc. As soon as the last man reaches the front of the column, he assumes a stooping position, followed by the men who followed him. When the man who headed the column has leaped over the backs of the men making up the column, he touches forward across the distance line ending the race.

b. Skin the snake. Participants assume the column of files position. Each reaches back between his legs with his right hand and grasps the left hand of the team mate behind him.

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Upon the signal to start, the last man in the column l
keeping his feet together and maintaining his grip on
mate's hand. The column walks backward over hi
next to the last man lies down beyond the last until t
column is stretched on the ground. The man who wa
front of the column will be the last to lie down. He wi
immediately and, running forward, straddling the lin
the line with him. The line which gets to its feet first
breaking wins the race.

c. Wheelbarrow race.—The front man of the column pla
hands upon the ground. The second man grasps the
man's knees and supports them one on each hip, form
human wheelbarrow. At the signal to start, no. 2 pus
human wheelbarrow beyond the distance line and returns
starting line, where he becomes the wheelbarrow for
No. 3 returns and becomes the wheelbarrow for no. 4, etc.
race is finished when the last man in the column has p
his wheelbarrow across the distance line.

d. Rescue race.—Players stand at attention. At the s
to start, no. 2 in the column leaps upon the back of no. 1,
carries him across the distance line in piggy-back fashion.
he drops him. No. 1 remains behind the distance line.
rushes back and picks up no. 3 in the column and carries
beyond the distance line, and no. 2 remains there. No. 3 ru
back and picks up no. 4, etc. When the last man in the col
has been carried across the distance line the race is finished.

e. Double rescue race.—This is a modification of the prece
race. Nos. 1 and 2 clasp hands and carry no. 3 across
distance line. Nos. 2 and 3 rush back and pick up no. 4
carry him across the distance line. When the last man has b
carried across the distance line the race is finished.

f. Monkey and crab race.—At the signal to start, the first m
in the column places his hands on the ground and walks monk
fashion to the distance line. On reaching same he assumes
erect running position and returns to the front of the colum
where he tags the second man, he himself going to the rear e
of the column. The second man on being tagged bends dow
with his hands and feet on the ground, facing upward, and co
tinues across the distance line in this position. He return
tags no. 3, and takes his place behind no. 1 at the rear of th
column. No. 3 walks monkey fashion. The rest of the colum
continues alternating, one man walking facing down and th

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Upon the signal to start, the last man in the column lies down, keeping his feet together and maintaining his grip on the team mate's hand. The column walks backward over him. The next to the last man lies down beyond the last until the entire column is stretched on the ground. The man who was at the front of the column will be the last to lie down. He will get up immediately and, running forward, straddling the line, pulls the line with him. The line which gets to its feet first without breaking wins the race.

c. Wheelbarrow race.—The front man of the column places his hands upon the ground. The second man grasps the front man's knees and supports them one on each hip, forming a human wheelbarrow. At the signal to start, no. 2 pushes the human wheelbarrow beyond the distance line and returns to the starting line, where he becomes the wheelbarrow for no. 3. No. 3 returns and becomes the wheelbarrow for no. 4, etc. The race is finished when the last man in the column has pushed his wheelbarrow across the distance line.

d. Rescue race.—Players stand at attention. At the signal to start, no. 2 in the column leaps upon the back of no. 1, who carries him across the distance line in piggy-back fashion. There he drops him. No. 1 remains behind the distance line. No. 2 rushes back and picks up no. 3 in the column and carries him beyond the distance line, and no. 2 remains there. No. 3 rushes back and picks up no. 4, etc. When the last man in the column has been carried across the distance line the race is finished.

e. Double rescue race.—This is a modification of the preceding race. Nos. 1 and 2 clasp hands and carry no. 3 across the distance line. Nos. 2 and 3 rush back and pick up no. 4 and carry him across the distance line. When the last man has been carried across the distance line the race is finished.

f. Monkey and crab race.—At the signal to start, the first man in the column places his hands on the ground and walks monkey fashion to the distance line. On reaching same he assumes an erect running position and returns to the front of the column, where he tags the second man, he himself going to the rear end of the column. The second man on being tagged bends down with his hands and feet on the ground, facing upward, and continues across the distance line in this position. He returns, tags no. 3, and takes his place behind no. 1 at the rear of the column. No. 3 walks monkey fashion. The rest of the column continues alternating, one man walking facing down and the

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other facing up, with hands and feet on the ground, until the last man, returning from the distance line, crosses the starting line.

g. Paul Revere race.—Players are arranged in column of files open order with a distance of 10 to 20 feet between contestants. A light player is selected from each team to act as rider. He starts just back of the last man in the column. Upon the given signal he leaps upon the back of the last man who carries him to the man next in front of him in the column. The rider must change from the back of the first man onto the back of the second man without touching the ground. The second man carries him to the third and he is passed on from man to man until he reaches the front man in the column who carries him across the distance line ending the race.

h. Relay centipede.—Players are arranged in the same order as in the Paul Revere race. The last man in the column runs forward to the man next in front of him and locks step with him folding his arms around his waist. The two men run forward and pick up three, until all cross the finish line, which should be 25 yards beyond the first man in the column.

i. Caterpillar race.—Players are arranged in column of files. The front man in the column places his hands on his knees. All of the men back of him bend forward. Each grasps the ankle of the man in front of him, placing his head between his legs. At the signal to start, the column crosses the finish line; that team has completed the event, provided the line is still unbroken.

j. Slap obstacle.—Four players are selected from each column and are placed in front of and in line with the column with a distance of 10 yards between each. The first man in front of the column stands at attention; the second man takes a stooping position, as for leap frog; the third man takes a stride stand position; the fourth man stands at attention. At the signal to start the man in front of the column runs forward, circling no. 1, leaping over no. 2, crawling between the straddled legs of no. 3, circling no. 4, after which he runs to the rear of the column and slaps the back of the last man; the last man slaps the back of the man in front of him and the slap is passed to the front man in the line, who rushes forward upon receiving his slap and repeats the performance of the first runner. The game is finished when the last man in the column, after clearing all obstacles, crosses the starting line. Runners are allowed to grasp the man as they circle him.

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f. Attention.—Players stand at attention and are numbered off from the front of each column. The leader calls a certain number. The man of that number in each column runs forward on the right-hand side around the column. Upon reaching the opening made by himself in the column he steps in, and assumes the position of attention. One point is awarded to the team whose number first assumes the proper attitude in the column. Another number is called and the game continues.

NOTE.—The game becomes more interesting when soldiers carrying arms are playing, as they can be require to bring arms to various positions upon coming to attention. It can be further heightened by having the soldier remove his haversack, or other accoutrements and replace same after circle in column before taking the place at attention in the column.

54. **Circle games.**—The teams are arranged in circles about the bed. The circles are formed by the contestants joining hands in a ring and stretching out as far as possible. Hands are then dropped to the side.

Participants per team	24
Minimum	12
Maximum	50

a. Lock-arm tag.—Players are arranged in pairs in a circle. The players in each pair lock inside arms and place the outside arms on hips. Pairs stand at a distance of at least 6 feet between each pair. Two players are selected. One is "it" and chases the other. The player being chased can link arms with either man in any pair in the circle. This makes three men. The man who has an opposite arm is then subject to being tagged by "it." Players are allowed to run through or around the circle in either direction. A man upon being tagged can immediately lay down, but as soon as he has linked arms with any one of the players in any pair within the circle he is not subject to being tagged.

b. Three deep tag.—Players are arranged in pairs as in the previous game, with the exception that the pairs are arranged with one player standing in front of the other. The game proceeds as in *a* above, but instead of locking arms the man being chased steps in front of one of the pairs of players, which makes that group three deep. The rear man in that group is the man chased by "it."

c. Pommel.—Either a knotted towel, a stick, a piece of rope, a sneaker, a belt, or a swatter is required. The players are

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tion by walking away from center, while the men who started in the standing positions as slowly and gradually assume sitting positions by walking toward center. The gradual change from the sitting to the standing position of the alternate men makes a very pretty effect.

55. Rest games.—These games can be used between strenuous, active games for the purpose of resting the players. They can also be used in the interior as a means of social entertainment.

a. Buzz.—Players are grouped around the leader in a ring. The leader has the players start counting. If it becomes the player's turn to count seven, some multiple of seven or a number with seven in it, that player must say "buzz" instead of the number. The penalty for not doing this is dropping out of the circle. The counting will continue so long as there are players in the game.

b. "Kelly says"; "O'Grady says."—The players are grouped about the leader or in military formation. The leader gives the commands preceded by the words "Kelly says." Example: Kelly says, "Right face"; Kelly says, "Be seated." If the leader leaves out "Kelly says" before any of his commands, the command is not to be executed. The player answering such a command drops out of the game. This game is very popular with soldiers and can be used with the manual of arms.

c. Do this, do that.—All players stand facing one of the number who is their leader. The one who is leading assumes any gymnastic position or imitates any action, at the same time saying "do this" and the others immediately imitate. Should the leader at any time say "Do that" instead of "Do this," any player who imitates the action performed must be seated or pay a forfeit.

d. Pass the buck.—The players are in formation of two or more files, standing at stride-stand position with forward body bend and hands upon hips. Upon the starting signal the back man comes to the position of attention with a snap, at the same time striking hard with the open palm of both hands the seat of the man in front of him, who in turn "passes the buck" on down the file. When the file leader receives the "buck" he immediately gives the command, ***About face.*** The file about faces and jumps to a stride stand forward trunk bend, and the "buck" is then passed up the file harder and faster than it went down. This is a relay race, and the file getting the "buck" back to its file closer first wins. It is advisable to repeat the relay; that is, have the "buck" passed down and up the file twice.

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56. Miscellaneous games.—*a. Team competition.*

(1) *Line wrestling.*

Participants	30
Minimum	8
Maximum	200

One line is marked upon the field. Teams line up on each side of the line, facing each other. The object is to pull the opponent across the line. At the command *Go* the men try to pull opponents across the line. When both feet of a man cross the line he becomes a captive and is out of the game for that trial. The team which has succeeded in pulling over the most men at the end of two minutes wins. The best two out of three pulls determine the best team.

(2) *Taking the trench.*—Number of participants same as in (1) above. Two parallel lines about 10 feet apart are needed. Players of team one (the defenders) line up on one of the lines with their backs toward the other line. The object of team two is to break through the line formed by team one and cross "No-man's-land," which is the space between the two lines. As soon as they have crossed the second line, they have taken the trench and can no longer be molested. Team two endeavors to prevent team one, by holding or pushing. (Holding by the clothing is not allowed.) Two minutes is allowed for a try. Every man who has crossed the second line before the two minutes are up counts one point for his team. In the second charge no. 1 changes places with no. 2.

(3) *Tug-of-war.*—Participants form same as above.

Participants	25
Minimum	4
Maximum	50

A 1½-inch rope, 60 to 100 feet long, is needed. The center of the rope is marked by a tape or string. Six feet on both sides of the center, the rope is marked by other pieces of tape. Opponents are lined up at each end of the rope. (They are not allowed to grasp it beyond the 6-foot mark, nor are they allowed to tie it about their bodies.) The center of the rope is placed over a mark on the ground. At the signal to pull, the teams endeavor to pull their opponents across the center line. If at the end of two minutes a team has succeeded in pulling the center of the rope on its side of the center mark on the field, it wins the pull. If at any time previous to the two minutes' time

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limit either team succeeds in pulling its opponents so that the 6-foot tape on the opponent's side of the rope crosses the center line, that shall count as a victory for that team and pull ends.

(4) *Dual wrestling.*—Teams line up for dual competition with a short man in front of the column. Arrange men in columns with not over 10 men in each column. The first man in the column steps out and wrestles, endeavoring to make his opponent touch the ground with some part of the body other than the feet. If he succeeds it counts one point for his team. The two men take their places at the rear end of the line and the second two

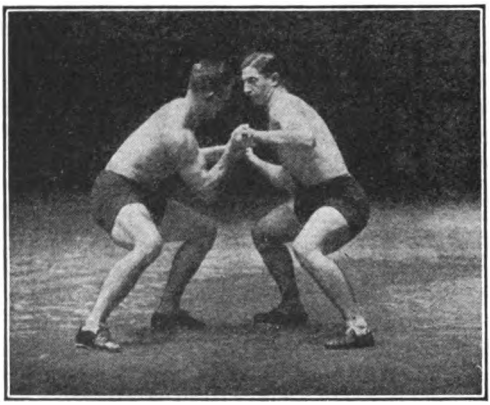

FIGURE 79.

men step out and wrestle. This is continued until all the men have competed. The team having the largest number of points at the end of the contest wins. Winners in each column can be matched in a final if desired.

b. Individual contests.—(1) *General.*—(*a*) These exercises are those in which the benefits are lost sight of in the pleasure their attainment provides, which in the case of these contests is the vanquishing of an opponent. The men are pitted against each other in pairs; age, height, weight, and general physical aptitude being the determining factors in the selection.

(*b*) In the contests in which superiority is dependent upon skill and agility no restrictions need be placed upon the efforts of the contestants, but in those that are a test of strength and endurance it is well to call a contest a "draw" when the men are

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equally matched and the contest is likely to be drawn out to the point of exhaustion of one or both contestants.

(c) Contests that require skill and agility should alternate with those that depend upon strength and endurance. In order to facilitate the instruction, a number of pairs should be engaged at the same time.

(2) *Cane wrestling.*—The cane to be used should be about an inch in diameter and a yard long, ends rounded. It is grasped with the right hand at the end, knuckles down, and with the

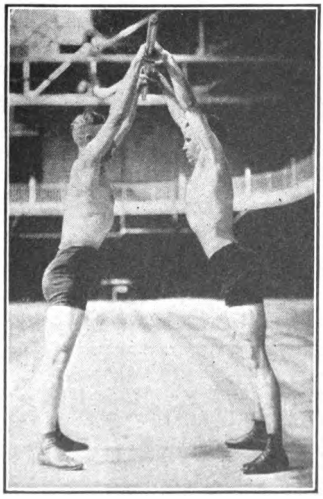

FIGURE 80.

left hand, knuckles up, inside of and close to the opponent's right hand. Endeavor is then made to wrest the cane from the opponent. Loss of grip with either hand loses the bout (fig. 79).

(3) *Cane twisting.*—Contestants grasp the cane as in figure 79, only the knuckles of both hands are up and the arms are extended overhead. The contestants endeavor to make the cane revolve in their opponent's hands without allowing it to do so in their own. The cane must be forced down (fig. 80).

(4) *Cane pulling.*—Contestants sit on the ground, facing each other, legs straight, and the soles of the feet in contact. The cane is grasped as in figure 80, but close to the feet. The object

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is to pull the opponent to his feet. The legs throughout the contest must be kept rigid (fig. 81).

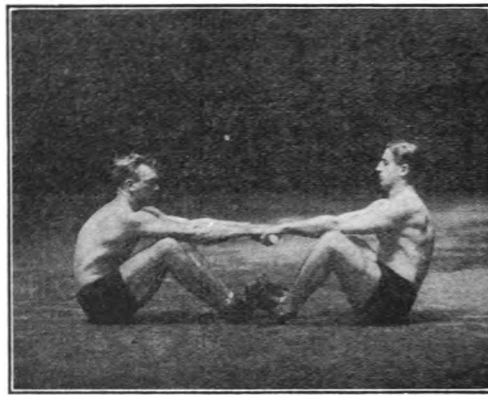

FIGURE 81.

(5) *"Bucked" contest.*—Contestants sit on the ground "bucked"; that is, the cane is passed under the knees, which

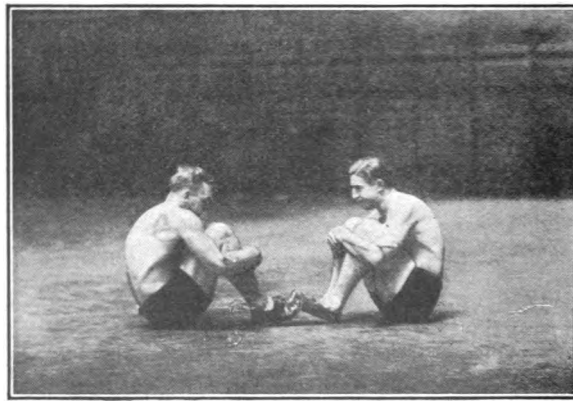

FIGURE 82.

are drawn up, and the arms passed under the cane, with the fingers laced in front of the ankles. The object is to get the toes under those of the opponent and roll him over (fig. 82).

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(6) *Single pole pushing.*—Contestants grasp the ends of a pole, 6 feet long and 2 inches thick, and brace themselves. The object is to push the opponent out of position (fig. 83).

(7) *Double pole pushing.*—The poles are placed under the arms close to the armpits, ends projecting. The object is the same as in (5) above (fig. 84).

(8) *Double pole pulling.*—Assume position as in figure 84, but standing back to back. The object is to pull the opponent out of position (fig. 85).

(9) *"Cock fight."*—Contestants hop on one leg, with the arms folded closely over the chest. By butting with the fleshy part

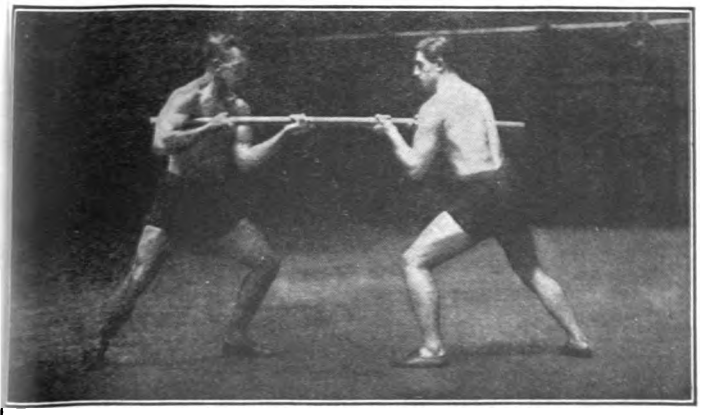

FIGURE 83.

of the shoulder, without raising the arms, or by dodging, the object is make the opponent change his feet or touch the floor with his hand or other part of his body (fig. 86).

(10) *One-legged tug of war.*—Contestants hop on one leg and grasp hands firmly, the object being to pull the opponent forward or make him place the raised foot on the floor (fig. 87).

(11) *The "siege."*—One contestant stands with one foot in a circle 14 inches in diameter, the other foot outside, and the arms folded. Two other contestants, each hopping on one leg, endeavor to dislodge the one in the circle by butting him with the shoulder. The besieged one is defeated in case he raises the foot in the circle or removes it entirely from the circle. The besiegers are defeated in case they change feet or touch the

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floor. As soon as either of the latter is defeated his place is immediately filled, so that there are always two attacking.

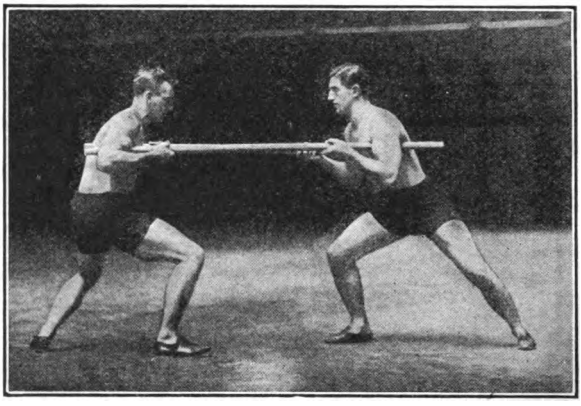

FIGURE 84

The besieged should resort to volting and ducking rather than depending upon his strength (fig. 88).

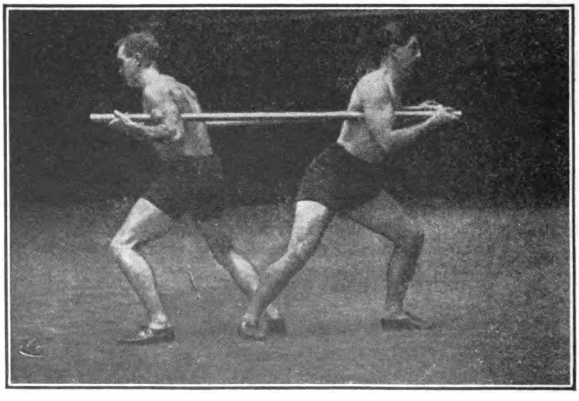

FIGURE 85.

(12) *One-armed tug.*—Contestants stand facing each other, right hands grasped, feet apart. The object is to pull the oppon-

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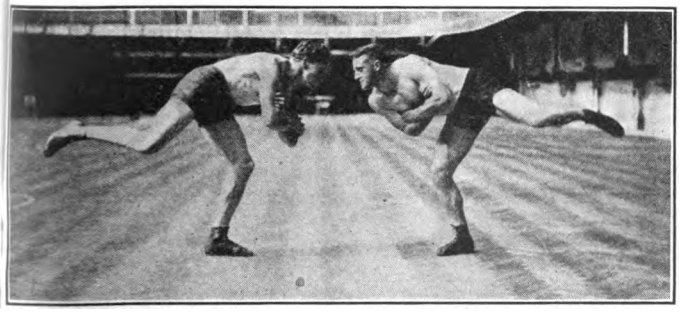

FIGURE 86.

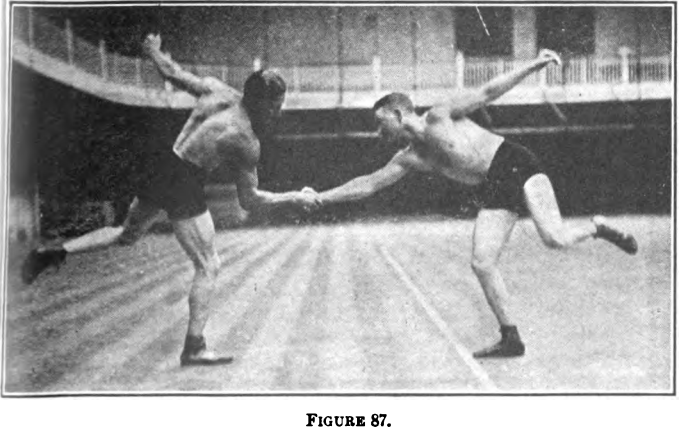

FIGURE 87.

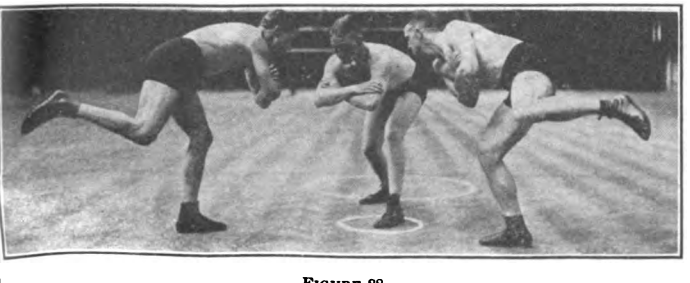

FIGURE 88.

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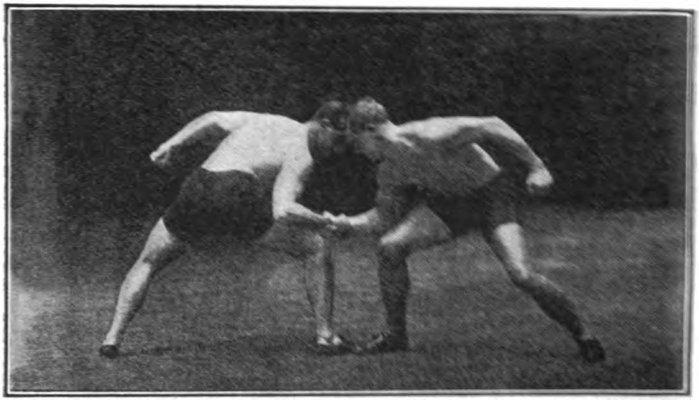

FIGURE 89.

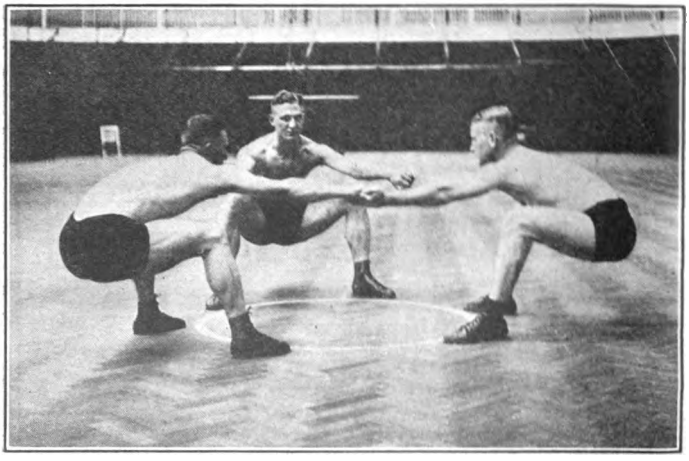

FIGURE 90.

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[illegible]

[illegible] with [illegible]

The [illegible]

[illegible] *Two men*.—These [illegible]

[illegible] each other's hands [illegible]

about 3 feet in diameter [illegible]

to make use of the contracted [illegible]

[illegible] *India* [illegible]

Up[illegible] and shoulders [illegible]

The right leg is [illegible]

[illegible] and [illegible]

opponent's upper leg [illegible]

by forcing his leg [illegible]

[illegible]

[illegible]

37. Corrective [illegible] must endeavor to [illegible] treating, for without it both will [illegible] cases.

Minor physical defect [illegible] physical drills if such drills are [illegible] sponding parts of the body [illegible] upon the theory that it [illegible] of all parts of the body [illegible]

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much more rapidly than the stronger ones, thus constantly diminishing the difference between the two until the difference ceases to be marked or material. This is particularly true in the training of younger persons. When defects are of long standing, due to faulty posture, occupation, or the result of previous illness, special instruction may be necessary, but this must not interfere with the man's participation in the regular physical drills unless it is found that he is unable to participate in them; such cases should be treated specially. Only the most common physical defects and corresponding corrective exercises are noted below:

a. Dropping head.—Exercise the muscles of the neck by bending, turning, and circling the head, with muscles moderately tense. Cultivate the habit of keeping the chin elevated and eyes directed upward.

b. Round or stooped shoulders.—(1) Stretch arms sideward from the front to the side horizontal, turning palms up as the arms move sideward; pause in side horizontal, stretching the arms well out in the plane of the shoulders. Inhale and elevate the chest with the sideward movement; exhale and relax with the forward movement.

(2) Swing arms sideward from the front to the side horizontal, palms down, with muscles relaxed.

(3) Circle arms upward and backward slowly from the front horizontal and back to that position, with muscles moderately tense. Inhale with the upward and exhale with the backward-downward movement.

(4) Move shoulders forward, with muscles relaxed, then raise them in that position; force them back in that elevated position slowly, with muscles tense, until they are in the proper plane, inhaling at the same time; pause and then lower and relax to the normal position, exhaling at the same time.

c. Weak back.—(1) Bend trunk forward, with back arched (fig. 18).

(2) Bend trunk forward with back arched, stretching arms sideward from the front horizontal (fig. 50).

(3) Bend trunk sideward, without, and with arm movements (figs. 20, 27, and 47).

(4) Lie on floor, face down, and raise head and shoulders or the extended leg or legs backward-upward.

d. Weak abdominal muscles.—(1) Bend trunk backward, without, and with arm stretchings (figs. 21, 33, and 51).

(2) Turn trunk right and left (figs. 16, 24, and 30).

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(3) Lie on floor, face up, raise extended leg or legs to the perpendicular; raise head and shoulders from the floor, or raise trunk to sitting position.

e. To increase depth and width of chest.—(1) Arm stretchings upward from front horizontal, muscles moderately tense, elevating the chest and inflating the lungs.

(2) Arm stretching sideward and then upward from front horizontal, elevating and inhaling as in (1) above.

(3) Stretch arms upward and downward laterally from attention, allowing arms, palms to the front, to cross overhead.

(4) Circle arms upward and backward from the front horizontal, muscles moderately tense.

f. Flat feet.—The following exercises have been recommended by the Medical Corps for the purpose of developing the muscles of the feet and legs, improving foot disabilities and preparing normal feet for more strenuous duty. They should be included in the setting-up exercises, and made obligatory for those suffering from flat-footedness and for those predisposed to that condition.

(1) Stand with feet parallel and rise on the outer borders of the feet, without twisting the legs or bending the knees.

(2) With feet parallel, walk on outer borders.

(3) Stand with feet parallel, or slightly toed-in, and circumduct hips outward (twist legs), keeping knees straight and the great toes in contact with the ground, heels raised, pressing ankle joints out.

(4) Stand with feet parallel; rise on toes; descend, letting only the outer borders of the feet touch the ground; flatten the feet on the ground.

(5) With feet parallel, curl toes under feet and relax.

(6) Cultivate the habit of standing and walking with feet parallel, and extending knees fully.

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